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SEISMOLOGICAL BULLETIN

IGY SUPPLEMENT

COAST & GEODETIC SURVEY
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U. S. DEPARTMENT OF COMMERCE

Sinclair Weeks, Secretary

COAST AND GEODETIC SURVEY—WASHINGTON

H. Arnold Karo, Director

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National Oceanic and Atmospheric Administration

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1957

The instrumental results tabulated in this supplement are from the following seismographic stations which are located in three regions.

Antarctic

Byrd (BYRD)

South Pole (SP)

Arctic

Thule (THULE)
Greenland

Pacific

Guam (GUAM)
Mariana Islands

Koror, (KOR)
West Caroline Islands

Truk (TRUK)
East Caroline Islands

These stations were established by the Coast and Geodetic Survey for the IGY and will provide additional control for locating epicenters of teleseisms in regions inadequately covered by previously existing stations. They will also provide data for studies in regional seismicity, crustal structure and other pertinent earth science problems.

STATION AND INSTRUMENTAL CONSTANTS FOR 1957

Station	Position	Instruments	Foundation and Elevation	T_o	T_g	Damping Ratio	Paper Speed	Time Break Reference Point	Ground Motion Trace "UP"
Byrd, Antarctica	Log cos 9.24039	B, paper, Z	3,500 m of ice	1.2	0.5		60mm/min.	End	
George Toney, In Chg	Lat. 79° 59.0'S								
Leo Davis	Long. 120° 00.5'W								
	Log cos 9.24042	W-L, NS	1510 m	4.0	3.5		30mm/min.	End	
	Lat. 79° 59.1'S	W-L, EW		4.0	3.5		30mm/min.	End	
	Long. 120° 00.7'W								
Guam, Mariana Islands	Log cos 9.98789	W-L, Z - GE gal	Coral	1.4	1.5	20:1	30mm/min.	Beginning	Up
Estelle Starr	Lat. 13°27'45"N	B-VR, paper, NS	168 m	1.0	18.	Near crit.	30mm/min.	Beginning	N
Cmdr. James Cox	Long. 144°43'29"E	L-N gal							
In Chg.		B-VR, paper, EW		1.0	17.	20:1	30mm/min.	Beginning	N
		L-N gal							
		B-VR, film, Z		1.0	.2		15mm/min.	Beginning	Up
		Geotech gal							
		B-VR, film, NS		1.0	.2		15mm/min.	Beginning	N
		Geotech gal							
		B-VR, film, EW		1.0	.2		15mm/min.	Beginning	E
		Geotech gal							
Koror, West Caroline Islands	Log cos 9.99643	W-L, Z	Red soil on coral	0.98	1.7	4:1	30mm/min.	Beginning	Up
	Lat. 7° 20.1'N	HTL, Z		0.5	0.5		30mm/min.	Beginning	Up
Kenneth Cravens	Long. 134° 29.1'E	Spg, NS	30.5 m	4.0	7.0	10:1	30mm/min.	Beginning	N
In Chg.		Spg, EW		4.0	7.0	10:1	30mm/min.	Beginning	E
[1]South Pole	Lat. 90°S	B - film, Z		1.1	0.5		15mm/min.	Beginning	Up
Willie Hough, In Chg	Long. 0	B - paper, Z		1.1	0.5	17:1	60mm/min.	Beginning	Up
Robert Benson									
[2]Thule, Greenland	Log cos 9.36644	W-L, Z	Glacial material	1.3	1.55	Near crit.	30mm/min.	Beginning	Up
SFC Willard Cyphers	Lat. 76°33.4'N								
Capt. Joseph Bell	Long. 68° 40.5'S	Spg - L-N gal, NS	275 m	6.0	7.32	13:1	15mm/min.	Beginning	N
In Chg.		Spg - L-N gal, EW		6.0	7.6	25:1	15mm/min.	Beginning	E
Truk, East Caroline Islands	Log cos 9.99631	B-VR, Z	Decomposed	1.0	0.2	crit.	30mm/min.	Beginning	Up
	Lat. 7°27'25"N	Spg - L-N gal, NS	Diabase 9.1 m	6.	6.0	crit.	30mm/min.	Beginning	N
Ruth Newman	Long. 151°51'15"E	Spg - L-N gal, EW		6.	6.0	crit.	30mm/min.	Beginning	E
In Chg.	Bat Cave								
	Log cos 9.99632	HTL, Z	Hard Basalt in Bat Cave 23 m of overburden 107 m	0.5	0.5	crit.	30mm/min.	Beginning	Down
	Lat. 7°27'25"N								
	Long. 151°51'20"E								

1. Film discontinued September 10, paper record begun September 23.
2. In operation after August 22, 1957

B - Benioff Moving Coil, B-VR - Benioff Variable Reluctance, W-L - Wilson-Lamison, HTL - Houston Technical Laboratory, Spg - Sprengnether
L-N - Leeds & Northrup, GE - General Electric,

Date and Station		Phase	(GCT)
			h m s
July 1			
SP	iP		02 21(35)
July 1			
BYRD	eP		02 32 50
SP	iP		02 33(28)
July 1			
BYRD	eP		06 37 27
July 1			
KOROR	eP		10 21 10
	iP		21 17
July 1			
KOROR	eP'		13 22 49
July 1			
SP	iP'		16 36(55)
July 1			
BYRD	eP'		19 48 17
KOROR	eP		19 38 11
	ipP		38 36
	isP		38 59
	iPcP		39 33
	iPP		39 52
	ipPP		40 17
	isPP		40 48
	iS		44 33
SP	eP'		19 49(01)
	iP'		49(22)
	iPKKP		59(56)
	iSKKP		20 03(45)
TRUK	iP		19 40 10
	i		41 17
	iPPP		44 55
	i		45 31
	i		48 09
	eS		48 36
	esS		49 17
	eScS		49 52
July 1			
GUAM	iP		23 15 23
	iS		15 38
July 2			
BYRD	eP'		01 01 48D
	iPP		04 28
	eSS		22 48
GUAM	iP		00 54 51C
	i		55 00
	iS		01 04 50
	e		05 14
	iSS		10 24
	iSSS		14 06
	eL		16 07
KOROR	eP		00 54 29C
	eS		01 04 14
SP	iP'		01 01(30)

Date and Station		Phase	(GCT)
			h m s
TRUK	eP		00 55 36C
	iPP		59 16
	i		59 20
	i		01 00 35
	eS		06 11
July 2			
SP	eP'		05 15(17)
July 2			
GUAM	iP		07 13 17
	iS		14 19
July 2			
SP	iP		07 44(50)
July 2			
KOROR	eP		07 45 09
	e(S)		46 51
July 2			
GUAM	iP		08 42 17
	iS		42 33
July 2			
SP	iP'		14 40(38)
July 2			
KOROR	iP		14 59 59
	i		15 01 55
	i		03 04
TRUK	iP		15 02 27
July 2			
SP	iP		22 03 09
July 3			
GUAM	iP		03 55 50
	iS		56 02
July 3			
BYRD	iP		06 12 10
	ipP		13 57
GUAM	iP		06 10 48
KOROR	iP		06 11 17
	i		11 48
	ipP		13 19
SP	iP		06 12 35
	ipP		14 23
TRUK	iP		06 09 43
	iScP		14 30
July 3			
SP	eP'		09 28 58
July 3			
BYRD	eP'		12 43 58
GUAM	iP		12 33 11
	iS		39 24
KOROR	iP		12 34 26

Date and Station		Phase	(GCT)
			h m s
SP	iP'		12 44 02
TRUK	eP		12 33 28
July 3			
SP	iP'		17 23 59
July 4			
BYRD	eP		06 26 57
July 4			
BYRD	iP		08 42 10
	i		42 24
KOROR	eP		08 35 34
	eS		40 55
	esS		41 07
SP	iP		08 41 34
	i		41 49
	i		42 22
	i		43 23
July 4			
SP	eP'		09 02 42
July 4			
BYRD	e(P)		09 55 00
	e		55 10
SP	eP		09 55 36
	iP		55 42
July 4			
KOROR	iP		12 36 48
July 4			
KOROR	iP		14 16 27
SP	iP		14 24 12
TRUK	iP		14 14 46
July 4			
SP	eP		14 47 20
July 4			
BYRD	e(P)		16 06 14
	i		06 19
SP	iP		16 06 22
July 4			
KOROR	eP		19 23 49
TRUK	iP		19 22 49
	iS		25 00
	eT		35 23
July 4			
SP	iP		23 10 22
	i		10 35
	i		16 37
July 5			
SP	iP		06 37 50

Date and Station		Phase	(GCT)
			h m s
July 5			
SP	iP		12 43 57
July 5			
SP	eP		15 45 01
July 6			
GUAM	iP		19 17 59
	iS		18 12
July 7			
BYRD	eP		15 41 46
July 7			
BYRD	eP		16 23 41
	e		29 01
	iS		33 58
	iPPS		35 05
GUAM	eP		16 16 19
	iS		20 04
	i		20 44
KOROR	iP		16 16 45
	i		16 55
	ePcP		19 57
	eS		21 11
	e		21 31
	e		22 39
TRUK	eP		16 14 45
	iS		17 22
	eT		26 29
July 7			
SP	eP		17 23 44
	i		23 55
July 8			
TRUK	iP		00 43 05
July 8			
GUAM	eP		09 40 47
	iS		41 51
	eL		42 48
KOROR	iP		09 41 36
	i		41 51
	i(S)		44 30
TRUK	iP		09 40 25
	iS		41 57
July 9			
BYRD	iP		03 28 08
July 9			
BYRD	iP		07 14 52
July 9			
BYRD	eP		10 11 16
	i		11 28
GUAM	iP		10 06 20
	ipP		06 43
	iPP		08 25
	iS		12 53

Date and Station		Phase (GCT) h m s
SP	eP'	10 15 36
TRUK	eP	10 06 59
	iPcP	08 22
July 9		
GUAM	iP	11 07 45
	eS	11 34
July 9		
GUAM	iP	13 20 37
July 9		
BYRD	e(P)	18 49 52
July 10		
BYRD	eP	09 17 12
July 10		
BYRD	iP	09 23 16
	i	23 41
July 10		
BYRD	eP	20 16 28
July 10		
TRUK	iP	23 10 28
July 12		
BYRD	eP	08 23 38
KOROR	iP	08 13 30
July 12		
BYRD	iP	21 09 05
GUAM	iP	21 00 22
	i	00 38
	i	01 16
	iS	03 06
	i	04 28
KOROR	iP	21 00 34
	iL	05 15
TRUK	iP	20 59 00
	iS	21 00 58
	eT	08 21
July 12		
BYRD	eP	22 11 37
GUAM	iP	22 02 47
	i	03 07
KOROR	iP	22 02 57
TRUK	iP	22 01 24
	e(S)	03 22
	eT	12 25
July 12		
GUAM	eP	22 17 57
	i	18 04
July 13		
TRUK	i(P)	01 09 01
July 13		
BYRD	iP	09 43 14
July 13		
BYRD	eP	14 09 49
	iPP	12 23
	iPPP	13 44
July 13		
BYRD	eP	14 35 26
July 13		
BYRD	iP	16 09 57
July 14		
BYRD	eP'	02 46 09
	i(PKS)	49 37
July 14		
BYRD	iP	06 33 36D
	ipP	34 18
	i(PcP)	34 29
	i	36 23
	ePcS	38 03
	iS	41 23
	isS	42 35
	iScP	43 05
	e(P'P')	07 02 51
GUAM	iP	06 33 05D
	iPcP	34 05
	ePP	35 02
	iScS	37 49
	iPcS	38 08
	iS	40 05
	iScP	42 37
KOROR	iP	06 33 28D
	ipP	34 11
	iPcP	34 19
	eS	41 11
TRUK	iP	06 31 58D
	ipP	32 33
	ePcP	33 14
	iPP	33 36
July 14		
BYRD	iP	08 20 26C
	e	20 43
	i	21 05
	ePP	22 42
	ePPP	24 01
	eS	28 11
	eScS	30 12
	eL	33 34
	eP'P'	50 18
GUAM	iP	08 20 28C
	iPcP	21 09
	i	21 28
	iS	28 16
	i	30 44
KOROR	iP	08 20 48C
	iPcP	21 39
	i	21 56
TRUK	iP	08 19 20C
	iPcP	20 57
	i	24 52
July 14		
TRUK	eP	09 08 21
	iS	09 59
July 14		
GUAM	iP	09 16 34
KOROR	eP	09 18 47
July 14		
BYRD	eP	09 53 03
	eS	10 01 41
	eScS	02 59
GUAM	iP	09 51 46
KOROR	iP	09 52 19
July 14		
GUAM	iP	12 49 19
	iS	49 31
	iL	49 33
July 15		
GUAM	iP	09 09 31
	iS	09 43
July 15		
SP	eP'	09 55 40
July 15		
SP	eP	12 42 05
	i	49 17
July 15		
GUAM	iP	21 13 46
	iS	13 59
July 15		
GUAM	eP	21 50 36
July 16		
GUAM	iP	06 08 27
TRUK	eP	06 09 39
July 16		
BYRD	iP	17 10 23
KOROR	eP	17 01 50
	eS	05 53
SP	iP	17 09 56
July 16		
SP	iP'	19 44 14
July 17		
SP	iP	01 20 26
	i	26 33
July 17		
BYRD	eP	04 34 15
SP	iP	04 33 42
July 17		
GUAM	iP'	05 32 36
	i	32 52
SP	iP	05 23 40
	i	23 55
TRUK	iP'	05 32 38
July 17		
BYRD	iP	11 21 58
	ipP	22 26
	isP	22 40
	e	23 49
	iPP	24 48
	iS	31 31
	esS	32 20
GUAM	iP	11 16 47
	ipP	17 01
	iPP	17 42
	eS	22 01
	eScS	22 57
KOROR	iP	11 17 22
	ipP	17 53
	isP	18 23
	iPP	18 47
	iS	23 01
	esS	24 07
SP	iP	11 22 12
	ipP	22 42
	isP	22 56
	ePP	25 06
	eS	31 58
	eP'P'	48 49
TRUK	eP	11 15 25
	ipP	15 42
	isP	16 03
July 17		
BYRD	eP	12 39 31
GUAM	iP	12 30 08
	i	30 18
	i	30 28
	i	30 48
	iS	33 07
KOROR	iP	12 28 31
	i	28 45
SP	iP	12 39 00
	i	39 10
	iPP	42 25
TRUK	eP	12 30 20
	i	30 47
July 17		
SP	iP	13 53 05
July 17		
KOROR	eP	16 50 45

Date and Station		Phase (GCT) h m s
July 17		
KOROR	iP'	18 59 50
SP	iP	18 53 55
July 17		
BYRD	eP	22 02 29
July 18		
GUAM	iP	01 24 07
SP	eP'	01 34 27
	e	39 28
TRUK	iP	01 24 21
	i	24 34
July 18		
TRUK	eP	01 29 20
July 18		
GUAM	iP	07 13 45
	iS	14 01
July 18		
SP	eP	09 08 25
July 18		
GUAM	iP	11 15 18
	eS	18 45
	eL	19 26
KOROR	eP	11 14 56
	i	15 06
	i	15 20
	e(S)	18 25
SP	eP	11 23 37
	i	24 14
TRUK	eP	11 14 15
	i	14 48
July 18		
GUAM	iP	12 10 23
	i	11 00
	iS	13 25
KOROR	iP	12 11 16
	esP	13 20
	iScP	17 50
SP	iP'	12 24 46
	ipP'	26 17
	ipPP	27 41
TRUK	eP	12 11 38
	ipP	12 55
July 18		
SP	iP	13 34 02
July 18		
SP	eP	14 14 39
July 18		
SP	eP	19 08 28

Date and Station		Phase (GCT) h m s
July 19		
GUAM	iP	07 16 57
	iS	17 15
July 19		
BYRD	eP	07 50 17
KOROR	iP	07 42 04
July 19		
GUAM	iP	13 07 19
	i	07 43
	i	07 52
	iS	11 37
	i	12 10
KOROR	iP	13 06 49
	i	07 45
	eS	10 39
	e	13 07
	e	14 21
July 19		
GUAM	iP	20 30 05
	iS	33 24
	i	34 11
KOROR	eP	20 29 14
	i	29 35
TRUK	eP	20 29 31
July 19		
GUAM	iP	21 41 07
	i	41 18
	iS	44 12
TRUK	eP	21 40 12
July 19		
TRUK	eP	23 13 34
July 20		
BYRD	eP	10 07 38
July 20		
KOROR	iP	11 21 20
July 20		
BYRD	iP	11 23 29
July 20		
GUAM	iP	13 09 29
	iS	09 53
July 20		
BYRD	eP'	14 27 30
	e(SKP)	30 52
KOROR	eP	14 15 21
	i	15 35
	ePP	16 22
	iPcP	17 08
July 20		
BYRD	eP	15 49 32
	iPcP	49 48
	e	50 37

Date and Station		Phase (GCT) h m s
KOROR	eP	15 43 38
SP	e(P)	15 50 10
	e	52 07
	iS	59 17
July 21		
BYRD	iP	00 33 01
July 21		
BYRD	eP	06 05 03
July 21		
BYRD	iP	07 12 50
	e	14 08
GUAM	iP	07 04 48
	iS	08 35
KOROR	eP	07 05 09
	iPP	05 28
TRUK	iP	07 03 06
	eS	05 14
	eT	13 02
July 21		
GUAM	iP	07 20 00
	i	20 35
July 21		
BYRD	eP	19 46 53
KOROR	eP	19 47 05
July 21		
GUAM	iP	20 43 06
	iS	43 22
July 22		
KOROR	iP	03 49 23
	i	50 00
	eS	50 45
	eL	51 39
July 22		
BYRD	eP	06 26 13
	iPcP	27 25
	iS	33 40
	eScS	36 02
July 22		
BYRD	eP	06 31 10
	iPcP	32 11
GUAM	iP	06 26 54
	i	27 10
	eS	34 44
KOROR	iP	06 27 00
	i	27 17
TRUK	eP	06 23 46
	e	24 06
July 22		
BYRD	iP'	10 34 59

Date and Station		Phase (GCT) h m s
GUAM	iP	10 21 08
	iS	24 55
KOROR	iP	10 21 50
TRUK	eP	10 22 20
July 22		
TRUK	eP	14 07 23
July 22		
GUAM	iP	17 41 11
	iS	41 36
TRUK	eP	17 42 32
	eS	43 58
July 22		
GUAM	eP	19 28 25
TRUK	iP	19 26 58
	i	29 11
July 22		
GUAM	iP	20 26 13
	iS	26 43
TRUK	iP	20 27 36
	i(S)	29 01
July 23		
BYRD	eP'	01 04 21
	e	08 00
	i	09 04
GUAM	eP	00 53 53
	eS	01 01 04
KOROR	iP	00 55 120
	i	55 33
	i	55 48
	i	56 40
	eS	01 03 19
TRUK	eP	00 54 10
	i	54 13
	i	54 45
	e	55 11
July 23		
BYRD	eP	06 31 35
	e	32 40
GUAM	iP	06 28 41
July 23		
BYRD	eP	08 02 43
July 23		
BYRD	iP	13 39 42
KOROR	iP	13 39 01
TRUK	iP	13 37 28
July 23		
GUAM	iP	19 15 01
	i(S)	15 16

Date and Station		Phase (GCT) h m s
July 24		
BYRD	eP	02 06 58
	i	07 15
	eS	14 20
GUAM	iP'	02 17 03
KOROR	eP'	02 17 09
SP	iP	02 07 45
	eS	15 58
July 24		
BYRD	eP	06 14 27
GUAM	iP	06 15 39
SP	eP	06 15 05
TRUK	eP	06 14 16
July 24		
GUAM	iP	08 10 01
SP	eP	08 20 18
July 24		
BYRD	eP	10 08 05
	i	08 24
GUAM	iP	10 04 16
	i	04 34
	iPP	05 59
KOROR	eP	10 04 55
SP	iP	10 08 33
TRUK	eP	10 03 10
	iP	03 16
July 24		
BYRD	iP	10 57 21
	ipP	58 05
	i	11 01 54
GUAM	iP'	11 07 14
SP	iP	10 57 59
	epP	58 37
	eS	11 06 11
July 24		
BYRD	eP	11 13 38
	eS	22 39
GUAM	iP	11 10 02
	i	10 09
	iPcP	11 59
	eS	16 06
KOROR	eP	11 10 28
	iP	10 33
	i	10 50
SP	eP	11 14 04
	eS	23 29
TRUK	eP	11 08 42

Date and Station		Phase (GCT) h m s
July 24		
BYRD	eP	13 18 46
	e(PcP)	20 09
SP	eP	13 19 33
July 24		
GUAM	iP	14 45 17
	iS	48 59
KOROR	iP	14 43 24
SP	iP	14 53 34
TRUK	eP	14 45 22
	i	45 36
	iS	49 14
July 24		
BYRD	eP	14 53 43
July 24		
SP	iP	15 05 14
July 24		
GUAM	iP	16 53 30
July 24		
BYRD	eP	18 30 31
SP	eP	18 31 05
July 24		
KOROR	iP	19 40 32
July 25		
TRUK	eP	00 01 09
July 25		
BYRD	eP'	08 01 42
	e(SKP)	05 13
GUAM	eP	07 51 07
KOROR	eP	07 52 24
TRUK	iP	07 51 25
	i	51 40
July 25		
BYRD	iP	11 16 48
July 25		
GUAM	iP	14 16 05
KOROR	iP	14 15 44
July 25		
GUAM	eP	18 37 48
July 25		
GUAM	eP	19 28 53
	iP	28 56
KOROR	iP	19 28 27
July 25		
TRUK	eP	22 08 17

Date and Station		Phase (GCT) h m s
July 25		
KOROR	eP	22 20 40
July 25		
BYRD	e(P)	22 48 33
	i	48 49
July 26		
TRUK	eP	00 49 25
July 26		
GUAM	eP	05 07 37
	i	07 40
KOROR	iP	05 08 02
TRUK	eP	05 06 18
July 26		
BYRD	eP	06 58 41
July 26		
GUAM	iP	13 57 33
July 27		
GUAM	iP	13 45 17
July 27		
BYRD	eP	14 56 04
	ePP	58 12
KOROR	eP	14 55 18
July 27		
KOROR	iP	15 39 15
	iS	40 29
TRUK	eP	15 42 47
July 27		
BYRD	iP	18 55 34
	ePP	58 56
GUAM	iP	18 47 52
	i	48 29
	iS	51 48
KOROR	eP	18 47 54
July 28		
KOROR	iP	01 38 26
	i	38 33
July 28		
BYRD	eP	02 56 53
July 28		
GUAM	iP	04 20 19
	iS	20 35
July 28		
GUAM	iP	04 35 22
	iS	35 38
July 28		
KOROR	eP	08 05 52
TRUK	eP	08 07 47

Date and Station		Phase (GCT) h m s
July 28		
GUAM	iP	08 49 52
	iS	50 59
July 28		
GUAM	iP	08 53 35
	iS	53 42
July 28		
BYRD	eP	08 53 33D
	iPP	57 48
	eSKS	09 04 15
	eP' P'	18 47
GUAM	eP	08 54 40
	iPP	59 23
	e	59 44
	i	09 09 13
KOROR	eP'	08 59 17
	ePP	09 00 45
TRUK	ePP	08 58 50
	eSKS	09 05 19
	e(SS)	13 57
	eL	29 58
July 28		
BYRD	eP	13 23 06
July 28		
KOROR	iP	16 34 34
July 28		
GUAM	iP	19 09 03
	iS	09 20
July 29		
BYRD	eP	09 22 50
GUAM	iP	09 20 00
KOROR	eP	09 20 40
July 29		
BYRD	eP	10 06 30
July 29		
BYRD	eP	13 40 57
July 29		
BYRD	iP	17 25 29D
	iPcP	26 15
	iS	33 44
	iP' P'	54 58
GUAM	iP'	17 34 56
	i	36 39
KOROR	eP'	17 35 07
	i	36 39
	eSKSP	48 51
July 29		
TRUK	eP	22 25 33
July 30		
TRUK	iP	07 55 01

Date and Station		Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)	Date and Station	Phase (GCT)
		h m s		h m s		h m s		h m s
July 30								
GUAM	iP	11 17 13						
	i	17 20						
	i	17 25						
	i	17 43						
	e(S)	18 53						
	i	19 17						
July 31								
GUAM	eP	07 22 36						
July 31								
TRUK	iP	07 41 16						
July 31								
GUAM	iP	10 54 28						
July 31								
GUAM	iP	19 31 47						
July 31								
TRUK	eP	20 33 56						