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MUTUAL INTELLIGIBILITY  
BETWEEN  
CERTAIN POLYNESIAN SPEECH COMMUNITIES

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CHAPTER I  
NATURE OF THE STUDY

The Problem

Language Versus Dialect. The precise distinction between language and dialect has not received concrete statement in linguistic science. It has been said that "the distinction between dialects and kindred languages is a matter of degree. The test is intelligibility". (Whatmough, 1956, p. 28) Certain things seem apparent in a useful differentiation between the terms language and dialect. First, when the speech of two individuals is completely comprehensible to each, one may say that they are using the same language. When no communication takes place through speech it is said that they speak different languages. This much is clear. It is also recognized however that speakers of one language will exhibit variations in speech from region to region or between social levels. When these variations serve to reduce intelligibility one may say that two dialects of a language are thereby revealed. As these differences become still more numerous and crucial across time and space, intelligibility is more and more limited until such a small degree of communication takes place that it can be said that for all practical purposes the speakers are using different languages.

The classification of varieties of speech into these two categories can be facilitated through the measurement of mutual intelligibility. (Gleason, 1955, p. 334) Mutual

intelligibility in contrast with non-reciprocal intelligibility describes communication taking place from speech group A to group B and conversely from group B to group A. The communication in both instances may not necessarily be equal. Stated in quantitative terms, mutual intelligibility is the average of the two values.

"What degree of difference between adjoining speech forms justifies the name of a language border?" (Bloomfield, 1933, p. 54) When there is a gradation between successive speech groups the groups which are most dissimilar may differ sufficiently so that the term "language" will apply to their relationship. However, between which pair of the intervening language groups should the language boundary be drawn? The author will follow the suggestion of Gleason and will attempt to draw a language boundary at the point of greatest cleavage where such a boundary is needed. (Gleason, 1955, p. 336)

Polynesian: One Language or Many? Ever since the publication of the journals of early explorers in the Pacific there has been wide acceptance of the proposition that the inhabitants of the Polynesian islands speak one language. Captain Cook had much to do in creating this impression when he said that the speech of Hawaii, Tahiti, Tonga, and New Zealand were "indisputably the same." Again in speaking of Hawaiian and Tahitian he said, "The languages of both places may be said to be almost word for word the same." (Cook, 1784, Book III, Chap. XII, p. 250) Another source states that,

"The inhabitants of most of the numerous islands of the south sea, called by modern geographers by the general name of Polynesia, have one common language." (Tahitian-English Dictionary, London Missionary Society Press, 1851)

For many years, there was no scholarly investigation with which to substantiate or qualify this specific point of view. More recently on the basis of lexical comparison, the Polynesian speakers have been grouped into three categories. These groups are eastern, western and outlier Polynesia. (Elbert, 1953) It has been assumed that these groups probably constitute separate languages. The evaluation of this grouping as well as the extent of further differentiation within these areas on the basis of mutual intelligibility has been the purpose of this study.

A research tool was needed by which the extent of mutual intelligibility could be gauged. Such a technique was supplied as a result of the work of C. F. Voegelin. (Voegelin and Harris, 1951) When adequate and mobile recording devices became available he was among the first to attempt a new approach to dialectology. His technique was adopted for this study. There appeared to be at least two situations in which this technique could be applied. The first was the identification of a spoken basic word list. The second situation was in the measurement of comprehension of sentences or short texts. The first approach was used by Joe E. Pierce in comparing dating of language separation through glottochronology with recognition of recorded vocabulary items which were the



basis for the lexicostatistical comparison. (Pierce, 1954) He suggested that for languages which have been separated for a long time the method of testing intelligibility by short texts is not applicable due to a uniformly low percentage of recognition. However, by using such a method Bruce Biggs and Harold Hickerson were both successful in working out language and dialect relationships among Yuman and Iroquois speakers respectively. (Biggs, 1959; Hickerson, 1952)

This project was designed to follow the general methods and objectives as set down by Biggs and Hickerson in delineating language and dialect boundaries. Pierce's basic technique was used in providing supplemental material for an understanding of problems of comprehension rather than attempting to arrive at conclusions of time depth evaluation such as are obtained in lexicostatistical studies.

Areas of Investigation. The investigation was conducted in two locations, Hawaii and Tahiti. The period of the study ranged from 1959 to 1961. An attempt was made to cover the three Polynesian culture areas. Outlier Polynesia has been represented least well, while East Polynesia has received the most attention. This has been a function of geographical location and availability of informants. The areas from which vocabulary and sentence texts were obtained are: Easter Island (Ea.), Hawaii (Ha.), Kapingamarangi (Ka.), Mangareva (Ma.), New Zealand Maori (Mi.), Marquesas (Mq.), Rarotonga (Ra.), Samoa (Sa.), Tahiti (Ta.), Tonga (To.), Tuamotu (Tu.),

and Uvea (Uv.). These abbreviations were adopted for two reasons. First, except for Easter Island, they maintain the familiar native term for the island or island group. Second, whether or not the island name is spelled out or abbreviated makes no difference in the alphabetical sequence. Speakers from Easter Island, Kapingamarangi, Maori, and Uvea were not available for testing comparison of other Polynesian speech.

### Field Methods

Nature of the Text Material. In order to evaluate mutual intelligibility between speech groups, it must be recognized that intelligibility itself is most difficult to ascertain. What is possible is to get a measure of intelligibility in so far as it is demonstrated overtly in some specific response. Thus one may rely on the statements of informants or one may test the informants. Statements of informants are surely of some value but hardly capable of any degree of quantification. In the author's experience, all informant statements of language relationships cannot be taken at face value. Thus the Rarotonga informant said that Rarotongan was closest to Tongan. This statement was not substantiated by the tests.

It was decided that translation responses to spoken utterances in various Polynesian speech forms would be the basis for comparison. A test was devised consisting of a basic vocabulary and certain short utterances. Since utterances are more often longer than one word in duration, the sentence tests which employ not only variation in vocabulary items but also in elements of syntax were considered to be more basic for purposes of determining dialect and language distance between speech communities. The basic vocabulary tests were designed to supplement the sentence tests and enable attention to be focused on smaller utterances in an attempt at analyzing aspects of phonology and morphology in

greater detail than would be practical with the sentence tests.

The vocabulary consisted of a list of 100 words adapted from Morris Swadesh's list of 100 basic words which had been designed for use in lexicostatistical comparisons. These were recorded on magnetic recording tape. Each word was pronounced twice with a short pause each time. In a like manner the sentence texts were recorded twice and consisted of short utterances employing a variety of grammatical forms such as pronouns, possessives, particles, conjunctions, as well as different tense and aspect constructions. Use was made of some of the basic vocabulary.

The sentence tests posed a problem in response evaluation. With the basic vocabulary tests an informant's translation would be either correct or incorrect indicating that he had understood or misunderstood the word in question. With the sentences however it was recognized that an informant might understand part but not all of the utterances. To facilitate comparison with the original text, sentence translations were almost always into a second Polynesian tongue. Since many informants lacked facility in English or French, translations in Polynesian were necessary. In spite of the Polynesian translations, it was still felt that certain errors in number, tense and person would be expected to occur even when the original text was understood. It was therefore decided that only certain basic elements in the sentences would be considered in the computations. Such

elements might be single major words or groups of one or more major words plus accompanying minor words. It was felt that these elements had a degree of unitary function in their respective sentences.

The words chosen for comparison were: substantives and verb bases, attributives to substantives and verbs, possessives, and pronouns. For the purpose of this paper, "substantives" and "verbs" are bases and stems used with certain particles and found in certain characteristic distributions. Particles marking verbal tense and aspect and substantive cases as well as interjections were not tabulated in the informant response. They were therefore not considered in the calculations although they were analyzed with their accompanying affixes commonly glossed as causative, passive, or nominalizing, and were considered as being part of the same unit with the associated substantives or verbs.

Informants for the Text Material. Two types of informants were needed for this study. The list of informants which follows is the group which supplied the native vocabulary items and sentence utterances. In selecting informants, an effort was made to get informants who would be representative of their linguistic group. Those informants who supplied the test material, however, had to be bilingual in either English or French in order that the desired test material could be collected. Those informants who listened to the tape recordings and who gave responses to the tests did not have to be

bilingual although in most cases they were. Since the Polynesian social and political institutions have almost invariably been supplanted by European institutions, the languages of business and public administration are of European origin. Occasionally, in French Oceania, the bilingualism of the listening informants was in a second Polynesian language. Here it was virtually impossible to find informants who could not speak Tahitian.

The second group of informants supplied the response to the recorded material. This group is called the test or listening informants. The scores of some of these informants had to be discarded since in the opinion of the researcher, they were not representative of the speech group as a whole. Deafness could have been a problem but those individuals who were obviously hard of hearing were not used in the testing. Furthermore, the recordings were repeated if the informant so desired. In certain cases an informant who supplied the test material also supplied responses to certain test material from other islands. Thus Ra.#1 responded in the Rarotongan sentences and subsequently supplied the Rarotongan vocabulary items. Ta. 8 made responses to the recorded material about two months after supplying the original Tahitian material. To. 1 made his responses before the Tonga material was elicited. Tu. 1 responded to most of the test before supplying the Tuamotuan sentences.

Easter Island: Pedro Chavez Teave. He had sailed to Tahiti with two other Easter Islanders a year or two before. He was about 20 years of age and was a bit clumsy at writing. This reduced somewhat the quality of the recorded material since he was reading the sentences. There was a noticeable amount of Tahitian influence in his speech. This seemed partially due to his stay in Tahiti and many Tahitian elements found in his speech were not substantiated in Englert's dictionary. However, it is said that Tahitian speech influenced Easter Island in the 1860's.

Hawaii: Mary Kawena Pukui. An associate in Hawaiian culture at the Bishop Museum in Honolulu, she was about 65 years old at the time of the study.

Kapingamarangi: Taitos Hikarip was a student at the University of Hawaii. He was 22 years old.

Mangareva: Captain Louis Carlson, who was in his 60's, was a retired port pilot for Papeete, Tahiti. Of part Caucasian racial extraction, he was born and raised in Mangareva but had lived many years in Tahiti.

Maori: Mrs. Reuhi Keena Hemmingsen. In her late 40's, she was a teacher at the Church College at Laie, Oahu, Hawaii. She had lived most of her life in New Zealand and had worked for the Bureau of Native Affairs. She was of Maori descent.

Marquesas: Tetua LeBronnec was of Marquesan-French descent and came from Hiva Oa in the southeast group. She had been living the past few years in Papeete, Tahiti, and was about 38 years old.

Rarotonga: Two informants were used. Elaine Frisby Over, in her early 20's, supplied the sentence texts. She was born in the northern Cook Islands and was raised mostly in Rarotonga. She came to Honolulu at about 16 years of age, and was an entertainer in Waikiki. Kainuku, age 60, supplied the basic vocabulary. He was a retired postal worker in Papeete, Tahiti. He spoke Tahitian, French and English.

Samoa: Falefata Utu, age late 20's. He was a student at the University of Hawaii for about four years, having come from American Samoa.

Tahiti: Francis Sanford, age 45, was working as the assistant to the French Governor and handled liaison between the French administration and the Tahitian people. He often served as the official interpreter for the Governor.

Tonga: Unga (Bill) Koloamatangi, age 19, came from Nuku'alofa where he has spent most of his life. He had visited a few weeks in Samoa coming to Honolulu on a private boat.

Tuamotu (Takaroa Atoll): Two informants were used. Aroari'i Arhan, in her late 30's, supplied the sentence texts and made corrections to the basic word list. She was born and raised



on Takarua in the Tuamotus and also spent a good deal of her youth in Tahiti. This accounts for the occurrence of both /k/ and /' / in her speech. This seems to be fairly typical of the Takarua and other western Tuamotu speakers. Speakers from the far eastern Tuamotus might have supplied a somewhat different text. The basic vocabulary was supplied by Madame Turoa, age, 40's. Her home had been in Takarua but she had spent a good deal of time on various other Tuamotu atolls.

Uvea: Madame A. Bernast, age 40's, was married to a Frenchman and had been living in Tahiti for about 5 years.

Testing Sessions. Individuals and groups of speakers from eight of the twelve linguistic areas listened to the tape recordings and were asked to respond with a translation of what they had heard. This was recorded on a separate set of sheets for each informant or group of informants. The responses were in a Polynesian tongue, usually their own, or, in French Oceania, in Tahitian. This was the case with the sentences. Occasionally with the vocabulary test, English or French was used when the informant was fluent enough and desired to respond in the European language. Since the vocabulary was basic it was felt that with fluent speakers of either English or French this would not distort the results.

During the test sessions if an informant wishes to hear a sentence or word a third or fourth time, this was done although there was no back tracking beyond the specific item in

question. The speed at which a given informant could finish a language test varied considerably. Where the complete test battery was administered it was found that no one informant could finish the battery in a single session. In only one case was the test series completed in two sessions. (Ra. 2) Partially contributing to this situation was the necessity of providing some diversion for the informant in order to avoid fatigue. This was done by playing music and stories recorded in the informant's language. Thus it was not unusual for a complete test battery to require thirty to forty hours of time, not including time lost in non-completed appointments or the time required for scoring tests. However it must be said that nearly all the informants made a conscientious effort to reply to all the test material. Thus motivation does not seem to have been a basic problem. Certain variations in intelligence and hearing acuity did remain uncontrolled factors. In the few cases where hearing acuity did seem reduced to a significant degree (Mq. 3, Ta. 3) the test battery was not completed.

Test Informants. Hawaii. All Hawaiian informants spoke English. Ha. 1 - Mrs. Dora Akana Wahine Au Kai Leong, age late 60's, was born and raised in Waipio Valley on the island of Hawaii and was of part Chinese ancestry. Ha. 2 - Mrs. Maialoha, age 60's, was from the island of Maui but had lived many years in Honolulu. Her husband occasionally listened to the tapes and gave suggestions. He was also from Maui. His

contribution to the responses was not large. Ha. 3 - Kalani Kapuainui, age early 50's, lived at Makaha beach on Oahu. Her husband listened to the tapes also but responded only rarely. Neither could be considered to be native speakers so the tests were not continued past the initial session.

Ha. 4 - Mrs. Emily Taylor, age 60's, was a caretaker of the Royal Mausoleum. Her Hawaiian did not seem too fluent and she would give no response unless the morphemes in question were very obviously Hawaiian in shape or unless she was prompted. Testing was subsequently discontinued. Ha. 5 -

Mrs. Margaret Ahakuelo, age 60's, lived in Honolulu and had traveled to Niihau. She said that she sometimes had trouble hearing the tape but her responses did not seem to bear this out.

Mangareva. All sentence text responses were in Tahitian.

Ma. 1 - (names unknown) were husband and wife from Mangareva visiting in Tahiti for a short time. They were in their 40's and spoke some French. Ma. 2 - Anna Manuireva, age 50's. She had been living in the Taunoa district of Papeete for a number of years. She had traveled in the Tuamotus and knew only a little French. She gave no responses in French. A girl from the Marquesas was visiting at the time of administering the Marquesan test and gave some suggestions as to responses, so its validity is not adequate to be counted as a Mangarevan score. Ma. 3 - Two women, each known as Mrs. Schmidt, one in late 40's and the other in her 50's, formed this group.

The older woman had lived a long while in Tahiti, while the younger woman had recently arrived from Mangareva and spoke only limited French.

Marquesas. All Marquesas sentence text responses were in Tahitian while some vocabulary responses were in French. Mq. 1 - Madame Lherbier and three nieces and nephews, had been living in Faaa, Tahiti. All spoke French and Tahitian. Mq. 2 - Maweke Tamarii, age 40's, had been living in Fataua, Tahiti during the previous years, having come from Nukuhiva. His wife usually attended the sessions but had little to add. They both spoke Tahitian and some French. Mq. 3 - She was an elderly Marquesan woman who seemed rather deaf. Mq. 4 - Lolia Lichtla, age late 20's, was from Ua Huka and had been living in Fautaua uta for a few years. She spoke good French and Tahitian. Her brother listened intermittently to the tapes but rarely responded.

Rarotonga. The English of all the Rarotongan informants was good and the majority of the responses to both vocabulary and sentences were in English. Ra. 1 - Kainuku. (See vocabulary informant.) His wife also listened and helped with the translations. Ra. 2 - William Peyraux, age 20, had been in Tahiti for a few months and had traveled to the Tuamotus. He spoke good English and fair Tahitian and had also some knowledge of French and Tuamotuan. Ra. 3 - Mr. Cowan, age 60's. He was the organizer of the stevedores in Tahiti and had been in Tahiti since 1912. He spoke Tahitian, French and English.

Samoa. Vocabulary responses were in English or Samoan when the English word was not known. The sentences were responded to in Samoan with a subsequent English translation. Sa. 1 - Apelu Galeai, age about 32, had been a student at the University of Hawaii for a number of years. Sa. 2 - Laita Saumalu, age late 40's, was working as a carpenter in Honolulu. His English was fair. His wife also listened but added very little information. Sa. 3 - Mrs. Julia Galeai, age 30, was the wife of Samoan informant number one. She responded at separate times from that of her husband. Her English was good as she had lived the previous three years in Los Angeles and Honolulu. Sa. 4 - Mrs. Catherine Richards, age 30's, was married to a Caucasian and lived in Honolulu. Church work had taken her into contact with speakers of many Polynesian communities. Her daughters listened but responded only occasionally.

Tahiti. The vocabulary items were usually responded to in French while the sentences were responded to in Tahitian. Ta. 1 - A group of residents of Porapora, ranging in age from 30 to 50. A few had traveled to the Australs and Tuamotus. They spoke French and a few words of English. Ta. 2 - Aui Tapotuarae and family ranged in age from 20 to 50. There were five individuals listening. The father had traveled to the Marquesas and all knew French. Ta. 3 - Teari Vahine and Teari Tane, ages 74 and 72 respectively, composed this test

group. The wife made the responses. She was slightly hard of hearing. Neither spoke French. Ta. 4 - Tetau, age 33, had married a French soldier and had traveled to France. She had also traveled into the Tuamotus. Ta. 5 - Taurua Aurora, age 20's, and Tahiri Tamata, age 50, were both of Rapan descent and were living at Fare Ute, Papeete. Tahiri worked at the boat works and on the pilot boat. They therefore had much contact with individuals from many Polynesian communities. Occasionally third parties listened. This was therefore not a well controlled group. Ta. 6 - This informant was a Tahitian woman, age 30, who spoke good French, being married to a Frenchman. Her home was in a predominantly Tuamotuan neighborhood. However she had not traveled very much. Ta. 7 - Tire Tara, age late 40's, lived in Pirae, Tahiti. He had traveled widely and learned much Mangareva, Rurutuan, Tuamotuan and some Marquesan. His responses therefore seemed invalid for comparative purposes. Ta. 8 - Francis Sanford, age 45, (see informant) had traveled rather widely in French Oceania and had lived in the Eastern Tuamotus as a boy. Ta. 9 - Aurora Natua, age 50, was in charge of the Museum in Papeete, and had traveled to Hawaii and Europe. She spoke good French, English, and some Tuamotuan, as well as having read much in journals on ancient times. Ta. 10 - Pauline Tetautahi, age 20, made her home in Papeete and was living with a girl from the Marquesas.

Tonga. Vocabulary responses were in English and the sentence responses were in Tongan, with an accompanying English translation. To. 1 - Unga Bill Kolomatangi, age 19, was also the text informant from Tonga. Tests were administered prior to getting the Tongan text material. To. 2 - Male Fane Fale, age 18; Kalolaine Mataele, age 19; Nanasipauu Vahai Fine, age middle 20's, composed this group. All the girls were students at the Church College at Laie, Oahu. They spoke good English and had had some exposure to Samoan and Hawaiian.

Tuamotu. Most of the responses (both vocabulary and sentences) were in Tahitian. Tu. 1 - Aroarii Arhan (see sentence text informant). Tu. 2 - Moeata, age 60's, was from the atoll of Takaroa and had lived a number of years in Tahiti. Occasionally her friend, Tangihara, age 70, listened and helped with responses. Tu. 3 - Mr. Turoa, age 40's, was a pearl shell diver and had traveled widely in the Tuamotus. His home was Takaroa. Tu. 4 - Hauroro Marker, age 35. She lived with her family in Fautaua, Tahiti. She spoke French and Tahitian. Occasionally her sister was present and assisted.

Evaluation. The above list of informants comprises the total number of individuals and groups of individuals who responded to the tape recordings. Most of their test results seemed valid in revealing the degree of comprehension of the

recorded speech. For one reason or another, however, the results of a few of these test sessions proved to be unusable in giving an accurate index of the amount of information which would be gained from the speech samples by an average person in the speech community being tested. Ha. 4, for example, did not seem to understand what she was supposed to do. Her scores were accordingly disproportionately low, as she would attempt no response unless the morphemic shape was nearly identical with the Hawaiian equivalent. Tahitian informants 5, 7, and 9 were considered invalid since the life experience or living situation was radically atypical for Tahitians. The following Table I summarizes the informant evaluation and indicates the type of informant session as single informant or one with an essentially single informant, or with multiple informants. The remarks column indicates those sessions which were considered invalid for the reasons stated above.



TABLE I  
INFORMANT EVALUATION CHART

Informant	Single	Multiple	Remarks
Ha. 1	x		
Ha. 2	x		
Ha. 3	x		
Ha. 4	x		x
Ha. 5	x		
Ma. 1		x	
Ma. 2	x		Mq. test not valid
Ma. 3		x	
Mq. 1		x	
Mq. 2	x		
Mq. 3	x		
Mq. 4	x		
Ra. 1		x	
Ra. 2	x		
Ra. 3	x		
Sa. 1	x		
Sa. 2	x		
Sa. 3	x		
Sa. 4		x	
Ta. 1		x	
Ta. 2		x	
Ta. 3	x		
Ta. 4	x		
Ta. 5		x	x
Ta. 6	x		
Ta. 7	x		x
Ta. 8	x		
Ta. 9	x		x
Ta. 10	x		
To. 1	x		
To. 2		x	Sa. test not valid
Tu. 1	x		
Tu. 2	x		
Tu. 3	x		

CHAPTER II  
THE TESTS AND THEIR RESULTS

Composition

The material used in the tests was divided into two groups, a basic vocabulary list (Appendix B) and a number of short sentences (Appendix A). The basic vocabulary list was adapted from Morris Swadesh's basic 100 words. (Swadesh, 1955) Since Polynesian equivalents of some items on the original list are either identical with other words on the list or are inappropriate to Polynesian experience, it was found necessary to modify the list. Thus the following substitutions were made from Swadesh's list of alternate terms: #3 grass was substituted for bark, #35 laugh for green, #41 wing for horn, #47 float for lie, #51 child for man, #52 straight for many, #72 live (not dead) for see, #73 flower for seed, and finally #92 spit for walk.

In both the basic vocabulary list and the sentence tests certain orthographic conventions were adopted to make the data more comparable. The native writing systems were followed where they conformed to the phonetic and phonemic patterns of the speech communities in question. However, vowel length and the glottal stop are seldom indicated in the native writings systems and therefore are indicated here by the macron (̄) and the apostrophe (') respectively. It must be admitted that the indication of all initial glottals and all macrons is not always complete in this transcription.

Other changes from the native orthography were made to facilitate comparison. Maori wh was thus changed to /f/. The letter f is a more accurate representation of this sound at least as far as the Maori informant's speech is concerned. In addition, the /n/, variously written ng and g, was retained as /g/. Hawaiian /w/ is variously pronounced (w) and (v) and was therefore retained as /w/.

Table IX is a summary of the cognate counts between the various language pairs. It is based on the basic vocabulary items in appendix B. Words were considered cognate if they provided some basis for comprehension and their shapes were consistent with rigorously established phonological and morphological processes such as assimilation, dissimilation and metathesis, as well as the preciously worked out system of sound shifts represented in tabke X. The cognate groupings for the individual vocabulary items in appendix B run vertically. However words in the languages which are separated by the slash mark, / , are not cognate even if they are in vertical position.

The sentence tests (Appendix A) are accompanied by an English translation. The words and phrases within the sentences which were considered unitary for purposes of scoring the informant's responses are underlined. Thus some sentences contain more basic units than do others.

### Scoring Criteria

Responses to the test items were assessed as being either right or wrong. Since the objective of the study was to measure communication, only the correct responses were tallied from the transcriptions of the translations given by the test informants. A response was considered correct if the translation into the native tongue or intermediate language showed that the informant understood the item in the sense in which it was used in the original tongue. In scoring the informant's translation an attempt was made to stick as closely as possible to the exact translation. If an informant supplied two words one of which was correct it was scored as a correct response. Furthermore if the informant had supplied one homophonous term and had also supplied two or more of the terms in a previous test the response was considered correct even though the single term was not the translation of the test item. Thus number 91 might be translated as "hole" one time and "hole" and "two" another time. Both instances were scored as correct.

A response was not considered correct when the informant correctly identified the term but then subsequently identified it as being a term from a specific island group and not native to his or her speech community. Such is the situation with terms learned as a result of direct experience in another language. Although not great in number examples of such terms would include certain Hawaiian words known to Samoans in Hawaii

but not to Samoans in Samoa. Hawaiian /maika'i/, "good", for instance, was correctly identified by some Samoans but had been learned in Hawaii and was recognized as being Hawaiian and not Samoan.

### Summarization of Scores

The tables at the end of this chapter summarize and inter-relate the data of appendices C and D. The raw score totals for both the sentences and basic vocabulary tests are found in tables II and VI respectively. Since the basic vocabulary lists all total 100 or in a few cases a little less than 100 it was felt that these scores are immediately comparable and could be considered as percentages. The total number of key units in the sentences, however, were more variable and it was therefore decided that percentage scores must be calculated in order to compare the various performances of the informants. In the case of the sentence tests a table of percentages is provided. (Table III) Thus some comparison is further available between sentence and vocabulary scores.

Where more than one informant listened and responded to the test material the average score was worked out so that one figure would represent each speech community. These figures are given in Tables IV and VII. Finally the mutual intelligibility scores were then computed by adding the two comprehension scores for each language pair and dividing by two. These figures are represented in Table V and VIII.

TABLE II  
SENTENCE TESTS RAW SCORES

	<u>Ea</u>	<u>Ha</u>	<u>Ka</u>	<u>Na</u>	<u>Mi</u>	<u>Mq</u>	<u>Ra</u>	<u>Sa</u>	<u>Ta</u>	<u>To</u>	<u>Tu</u>	<u>Uv</u>
Ha. 1:	26	104	16	26	24	26	25	25	38	3	34	4
Ha. 2:	36	116	21	37	34	38	31	26	48	2	49	13
Ha. 5:	34	113	17	33	30	41	37	30	51	3	45	11
Ma. 2:	56	54	37	95			101	26		7	106	
Ma. 3:	53	42	27	94		63	85	27		6	107	
Mq. 1:	1					100						
Mq. 2:	56	59	25	57		101	73	32		10	107	
Ra. 1:							119					
Ra. 2:	40	32	24	55		34	114	20	107	5	102	
Ra. 3:	39	40				37		20			96	
Sa. 1:	15	32	22	28	36	15	22	104	22	23	19	41
Sa. 2:	15	30	13	28	31	19	20	104	18	17	22	28
Ta. 6:	38	44	9	38		42	68	28		0	95	
Ta. 8:	32	43	20	58		48	91	19		5	108	
To. 1:		9	11					34				
To. 2:	17	14	17	23		11	30	96	14	118	9	73
Tu. 1:	36	42	15	51			97	27		10		
Tu. 4:	32	38	16	56		61	89	22		6	107	

**TABLE III**  
**SENTENCE TESTS PERCENTAGE SCORES**

	<u>Ea</u>	<u>Ha</u>	<u>Ka</u>	<u>Ma</u>	<u>Mi</u>	<u>Mq</u>	<u>Ra</u>	<u>Sa</u>	<u>Ta</u>	<u>To</u>	<u>Tu</u>	<u>Uv</u>
Ha. 1:	23	88	13	27	20	24	20	23	32	3	31	4
Ha. 2:	31	98	17	38	29	35	25	24	41	2	46	13
Ha. 5:	30	96	14	34	25	38	30	28	44	3	41	11
Ma. 2:	49	46	30	98			81	24		6	96	
Ma. 3:	46	36	22	97		58	68	25		5	97	
Mq. 1:						93						
Mq. 2:	43	56	20	59		94	58	30		8	97	
Ra. 1:							95					
Ra. 2:	35	27	19	57		31	91	19	92	4	93	
Ra. 3:	34	34				34		19			87	
Sa. 1:	13	27	18	29	31	14	18	97	19	19	17	41
Sa. 2:	13	25	11	29	26	18	16	97	15	14	20	28
Ta. 6:	33	37	7	39		39	54	26		0	86	
Ta. 8:	28	36	16	60		44	73	18		4	98	
To. 1:	15	8	9					32				
To. 2:		12	14	24		10	24	90	12	98	8	73
Tu. 1:	31	36	13	53			78	25		8		
Tu. 4:	28	32	13	58		56	71	21		5	97	



TABLE IV  
SENTENCE TESTS MEAN SCORES

Lang.	Listeners from:							
	Ha.	Ma.	Mq.	Ra.	Sa.	Ta.	To.	Tu.
Ka	28	47.5	43	34.5	13	30.5	15	29.5
Ha	94	41	50	30.5	26	36.5	10	34
Ka	14.7	26	20	19	14.9	11.5	11.5	13
Ma	33	97.5	59	57	29	39	24	55.5
Mi	24.7				28.5			
Mq	32.3	58	93.4	32.5	16	41.5	10	56
Ra	25	74.5	58	93	17	63.5	24	74.5
Sa	25	24.5	30	19	97	22	32	23
Ta	39			92	17	18		
To	2.7	5.5	8	4	16.5	2	98	6.5
Tu	39.3	96.5	97	90	18.5	92	8	97
Uv	9.3				33		73	

**TABLE V**  
**SENTENCE MUTUAL INTELLIGIBILITY**

	<b>Ha.</b>	<b>Ma.</b>	<b>Mq.</b>	<b>Ra.</b>	<b>Sa.</b>	<b>Ta.</b>	<b>To.</b>	<b>Tu.</b>
<b>Tu</b>	36.7	76	76.5	82.3	20.8		7.3	97
<b>To</b>	6.4	15.3	9	14	24.3	7	98	
<b>Ta</b>	37.5				19.5			
<b>Sa</b>	25.5	26.8	25	18	97			
<b>Ra</b>	27.8	65.8	45.3	93				
<b>Mq</b>	41.2	58.5	93.4					
<b>Ma</b>	37	97.5						
<b>Ha</b>	94							

TABLE VI  
 BASIC VOCABULARY TEST RAW SCORES

Lang.	Ea	Ha	Ka	Ma	Mi	Mq	Ra	Sa	Ta	To	Tu	Uv
Ha. 1:	29	89	16	31	33	23	33	20	38	11	17	24
Ha. 2:	33	90	14	31	33	30	35	27	40	11	22	27
Ha. 3:												
Ha. 4:		87		26		14		14	26	9	14	
Ha. 5:	31	91	8	37	36	30	36	23	46	10	26	19
Ma. 1:	53	49		92		46						
Ma. 2:	51	50	29	88		43	69	28		23	90	
Ma. 3:	56	44	25	91		36	72	29		17	79	
Mq. 1:						87						
Mq. 2:	50	46	25	61		88	59	31	93	29	65	
Mq. 3:		36				76						
Mq. 4:		44				88		29				
Ra. 1:												
Ra. 2:	48	34	28	59		33	88	30		22	60	
Ra. 3:	50	34	30	61		34	93	27		22	53	
Sa. 1:	34	33	29	20	30	22	30	90	20	19	14	43
Sa. 2:	27	34		19		21	17		25	24	12	34
Sa. 3:	28	32	19	26	29	23	25	90	27	24	18	37
Sa. 4:		38								28		
Ta. 1:		41	16					23				
Ta. 2:		42										
Ta. 3:		40	15	37		16	45	22		15		
Ta. 4:		39						25				
Ta. 5:		45	24	61			68					
Ta. 6:	41	35	19	38		24		26	96	15	52	
Ta. 7:	49	48	19	74		37	62	30		27	65	
Ta. 8:			22					26		18		
Ta. 9:		49	25	50				25		16		
Ta. 10:		38	16	39		45	55	24		16		
To. 1:		13	14					27				
To. 2:	34	24	18	26		20	20	56	18	92	18	72
Tu. 1:	44	41	21	42		30		28	94	22		
Tu. 2:	49	42	29	37		35	55	32			99	
Tu. 3:												
Tu. 4:	46	42	24	49		36	57	33		22	97	

TABLE VII  
BASIC VOCABULARY MEAN SCORES

Lang.	Listeners from:							
	Ha.	Ma.	Mq.	Ra.	Sa.	Ta.	To.	Tu.
Ea	31	53.3	50	49	29.9	41	34	46.3
Ha	90	47.7	45	34	34.2	39.2	13	41.7
Ka	12.7	27	25	29	24	17.6	16	24.7
Ma	33	90.3	61	60	21.7	38	26	42.7
Mi	34				29.5			
Mq	27.7	41.7	87.7	33.5	22	20	20	33.7
Ra	34.7	70.5	59	90.5	24	50	20	56
Sa	23.3	28.5	30	28.5	90	24.3	27	31
Ta	41.3		93		24	96	18	94
To	10.7	20	29	22	23.8	16	92	22
Tu	21.7	84.5	65	56.5	14.7	52	18	98
Uv	23.3				38		72	

TABLE VIII  
 VOCABULARY MUTUAL INTELLIGIBILITY

	Ha.	Ma.	Mq.	Ra.	Sa.	Ta.	To.	Tu.
Tu.	31.7	63.6	49.4	56.3	22.9	73	20	98
To.	11.9	23	24.5	21	25.4	17	92	
Ta.	40.3		56.5		24.2	96		
Sa.	28.8	25.1	26	26.3	90			
Ra.	34.4	65	46.3	90.5				
Mq.	36.4	51.4	87.7					
Ma.	40.4	90.3						
Ha.	90							

CHAPTER III  
OBSERVATIONS AND CONCLUSIONS

Factors in Comprehension

In analyzing the factors which effect the extent of comprehension of one person's speech by another, data may be drawn from both the sentence tests and the basic vocabulary test and certain observations may be made in the field. Thus for specific data dealing with phonology and word meaning, the basic vocabulary test has been most helpful. The sentence tests on the other hand illustrate certain aspects of syntax which effect comprehension.

Phonology. It would be expected that the closer the phonological systems of two speech communities are the greater would be the chances for comprehension of the vocabulary items. Table X lists the Polynesian consonant phoneme correspondences. Since the vowels are subject to only slight change from one language to another, it is the consonants which are the most crucial phonological factors in determining the extent of communication taking place from one speech community to another. For one speaker to understand another variety of speech he needs to bridge the consonant gap between his own phonological system and that of the other. The phoneme correspondences are of three varieties. First there are the phonemes which are nearly the same in shape from one speech community to another. These normally are recognized as being the properly corresponding phoneme in the listener's phonemic

system. Thus when a Polynesian speaker hears (p) he identifies it with his own /p/ phoneme. The same is true for (m) and (v). The other two types of correspondence involve actual changes in the shapes of the phonemes as they are found in the different speech communities. These shapes may or may not be similar in shape to other phonemes of the listener's phonological system. Where these shapes found in the speech of distant peoples are non-native in shape, it would seem at least to provide the listener with the opportunity of making the correct association. Thus the Hawaiian phoneme /k/ corresponds to /t/ in most other Polynesian tongues. In addition to this, the Hawaiian does not have a separate /t/ phoneme as distinct from his /k/ phoneme. He is at liberty to associate the (t) shape with his /k/ phoneme. In most cases that is just what the Hawaiian listener does. The same holds true for the /l/ and /r/ phonemes throughout the rest of Polynesia excluding Tonga. The last type of phoneme correspondence is the one which seems to pose the greatest hazard to communication. This is the foreign phoneme which has the same phonetic shape as one of the listener's phonemes but which does not correspond to that phoneme but to another phoneme, or in some cases to no phoneme at all in the listener's phonological system. Thus the (k) which a Hawaiian speaker hears in the speech of most non-Hawaiian speakers is not an equivalent to his /k/ phoneme but to his glottal stop /ʔ/.

Tables XI through XVIII summarize the sound shifts between the listener's language and the various languages listened to. Examination of the tables will show that, generally speaking, with more sound shifts there is less understanding. It generally holds that the closer the phonological systems of two speech communities are, the greater are the chances for comprehension of the vocabulary items. If one compares the number of cognates between two languages as revealed in the test material with the number of words correctly identified, a rough index of the extent of the effect of similarity or divergence in phonology is obtained. (Tables XI through XVIII) Thus in viewing the recognition-cognate ratio between Rarotonga and Mangareva whose phonological systems are the same, it is discovered that with the Rarotongans the ratio is 102. The greater the number of sound shifts there are between two speech communities, and the more critical they become, the lower becomes the recognition-cognate ratio. Thus the ratios between Rarotonga and Mangareva on the one hand and Tonga on the other are 44 and 41 respectively.

The relation between the number and type of sound shifts on the one hand and the comprehension as revealed in the recognition-cognate ratio on the other is not a simple one. Other factors such as reduplication, the devoicing of certain final vowels in Kapingamarangi and Marquesas speech, and the heavy aspiration found in Kapingamarangi speech tend to modify the statement that the more sound shifts there are, the less



will be the amount of understanding. In addition, this premise is not best illustrated by the scores of the informants from Mangareva, Marquesas, Rarotonga, and Tuamotus, who have the advantage of a certain amount of sophistication due to their experience with the Tahitian variety of speech and its phonological system. Nevertheless the statement does hold up better when dealing with the phonologically less sophisticated speakers from Hawaii, Samoa, and Tonga. Hawaiians score on Tongan speech and the table shows many and somewhat critical sound shifts. On the other hand Hawaiians do well with Tahitian speech where there are fewer and less critical sound differences. Samoans perform well with Hawaiian speech which offers few important sound shifts. Tongan speech is difficult phonologically for Samoans and the recognition-cognate ratio is correspondingly low. Tongan speakers perform surprisingly well with Easter Island speech. In view of the geographical distance this performance would seem to be partly attributable to the similarity in phonological systems.

TABLE IX  
BASIC VOCABULARY COGNATE SYNOPSIS

	<u>Ea</u>	<u>Ha</u>	<u>Ka</u>	<u>Ma</u>	<u>Mi</u>	<u>Mq</u>	<u>Ra</u>	<u>Sa</u>	<u>Ta</u>	<u>To</u>	<u>Tu</u>	<u>Uv</u>
Uv	52	40	57	52	51	45	52	60	41	83	31	
Tu	39	39	32	38	37	41	48	30	54	30		52
To	48	47	54	49	48	46	50	61	38		30	83
Ta	44	53	38	55	44	54	65	39		38	54	41
Sa	51	47	52	49	46	45	52		39	61	30	60
Ra	64	71	52	69	60	62		52	63	50	48	52
Mq	54	68	47	63	54		62	45	54	46	41	45
Mi	55	57	51	62		54	60	46	44	48	37	51
Ma	64	68	51		62	63	69	49	55	49	38	52
Ka	49	47		51	51	47	52	52	38	54	32	57
Ha	63		47	68	57	68	71	47	53	47	39	40
Ea		63	49	64	55	54	64	51	55	48	39	52

TABLE X  
POLYNESIAN CONSONANT PHONEME CORRESPONDENCES<sup>1</sup>

PPN	Ea	Ha	Ka	Ma	Mi	Mq	Ra	Sa	Ta	To	Tu	Uv
p	p	p	p/ph	p	p	p	p	p	p	p	p	p
t	t	t/k	t/th	t	t	t	t	t/k	t	t	t	t
k	k	ʔ	k/kh	k	k	k/ʔ	k	ʔ	ʔ	k	k	k
ʔ	ʔ	-	-	-	-	-	-	-	-	ʔ	-	ʔ/-
f	h/f	h	h	ʔ	h/f	f/h	ʔ	f	f/h	f	f/h	f
v	v	w/v	w/wh	v	v	v	v	v	v	v	v	v
s	h	h	h	ʔ	h	h	ʔ	s	h	h	h	h
h	-	-	-	-	-	-	-	-	-	h	-	h/-
m	m	m	m/mh	m	m	m	m	m	m	m	m	m
n	n	n	n/nh	n	n	n	n	n	n	n	n	n
g	g	n	g	g	g	n	g	g	ʔ	g	g	g
l	r	l	r	r	r	ʔ	r	l	r	l	r	l
r	r	l	r	r	r	ʔ	r	l	r	-	r	l

1. adapted from Elbert, 1953. p. 154.

TABLE XI  
PHONOLOGICAL COMPARISON : HAWAIIAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ea	49	k n l ' -	t g r	k '
Ka	27	k n l '	t g r	k
Ma	49	k n l ' h	t g r	k '
Mi	60	k h n l '	t h/f g r	k
Mq	61	k h ' l	t h/f	k/' '
Ra	49	k n l ' h	t g r	k '
Sa	50	k h n	t f and s g	

TABLE XI: HAWAIIAN (Cont.)

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ta	78	k h l n	t h/f r	'
Tu	56	k h n l '	t h/f gg r	k
Uv	59	k h n ' -	t f g	k '(sometimes) h(sometimes)
To	36	k h n ' - l	t f g	k h and ' -

TABLE XII  
PHONOLOGICAL COMPARISON : MANGAREVAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ea	83	- '		' h/r
Ha	70	t k ' g	h	k ' n
Ka	53	' v	h w	
Mi		' v	h w	
Mq	66	k g r '	h/r and h	k/' n '
Ra	102	Phonology is the same		
Sa	50	k ' r	f and s l	'
Ta		k g '	f/h and h	' '
To	41	- ' r	h f and h l	' -
Tu	222	'	f/h and h	
Uv		- '	h f and h	

TABLE XIII  
 PHONOLOGICAL COMPARISON : MARQUESAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ea	93	' - n	r g	'
Ha	66	t '	l	k
Ka	53	v n '	w g l	
Ma	97	f/h and h n '	g r	'
Mi		v n '	w g r	
Ra	95	f/h h n '	g r	'
Sa	67	h n '	s g l	
Ta	172	n '	r	'
To	63	- ' n	l g	' and h -
Tu	159	n '	g r	
Uv		- n '	g l	' and h

TABLE XIV  
PHONOLOGICAL COMPARISON : RAROTONGA

Lang,	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ea	77	- '	h	'
Ha	48	k g t ' r	k h l	' n
Ka	56	' v	h w	
Ma	87	Same phonological structure		
Mi		'	h/f and h	
Mq	54	g r '	f/h and g	n '
Sa	55	k ' r	f and s l	'
Ta		k g '	f/h and h	' '
To	44	- r '	h l f and h	' -
Tu	110	'	f/h and h	
Uv		- ' r	h f and h l	



TABLE XV  
 PHONOLOGICAL COMPARISON : SAMOAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or native shape but not corresponding to native Phoneme
Ea	59	- ' s l	h r	' k
Ha	73	g f s	h h	n
Ka	46	' f s v l	k h h w r	k
Ma	44	f s ' l	r	' ' k
Mi	64	' v s l	k w h r	
Mq	49	g l s	h	n '
Ra	46	f s ' l	r	' ' k
Ta	62	g s l	h r	'

TABLE XV: SAMOAN (Cont.)

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or native shape but not corresponding to native Phoneme
To	39	- - l ' s	h	' h - k
Tu	49	' s l	h r	k
Uv	63	- ' s	h h	' k

TABLE XVI  
PHONOLOGICAL COMPARISON : TAHITIAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ea	75	- '	k and g	'
Ha	74	' t r	k l	n
Ka	46	' v '	k w g	
Ma	69	f/h h ' '	k g	' '
Mi		' ' v	k g w	
Mq	37	' r		n '
Ra	79	f/h h ' '	k g	' '
Sa	62	h '	s g	
To	42	- ' ' r	k g l	' and h
Tu	97	' '	k g	
Uv		- ' ' r	k g l	' and h

TABLE XVII  
 PHONOLOGICAL COMPARISON : TONGAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not Corresponding to native Phoneme
Ea	71	h - f	r	- h
Ha	28	t k ' f h g -		k ' - h - n l
Ka	30	' f h v l -	w r r	- h -
Ma	53	' f h h l -	r r	- ' - -
Mi		' h v l -	w r r	- -
Mq	44	' h g l -		- - n ' -

TABLE XVII: TONGAN (Cont.)

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ra	40	' h f h l -	   F F	- - ' '  
Sa	44	k ' h h -	  s	' - - l
Ta	47	k ' h s l -	   F F	' - - '  
Tu	60	' h l -	  F F	- -
Uv	87	-	l	

TABLE XVIII  
 PHONOLOGICAL COMPARISON : TUAMOTUAN

Lang.	Recognition Cognate Ratio	Native Phoneme	Corresponding Non-native shapes	Zero or Native shape but not corresponding to native Phoneme
Ea	119	-	'	
Ha	107	t g k r	' ' l	k n
Ka	77	v	w	
Ma	112	f/h h	' '	
Mi		v	w	
Mq	82	g r	' '	n
Ra	117	f/h h	' '	
Sa	103	k h r	' s l	
Ta	174	k g	' '	
To	73	- r -	' l '	h -
Uv		- - r	' ' l	h

Word Meaning. The second aspect to comprehension is that of word meaning. This affected the performance on the vocabulary tests in two ways. First, the listener might be misled by what may be called spurious cognates. Secondly, only one word was obtained for a basic vocabulary item. A complete inventory of native terms for a specific vocabulary item would reveal more cognates. Performance scores on the vocabulary test might be increased through non-revealed cognates or morphemes with restricted meaning or of less frequent occurrence.

Spurious cognates as they are termed here are those morphemes which have the same shape from one speech community to another but have different meanings. Thus the Tahitian word for "sun" is /mahana/ which to a Hawaiian will mean "hot". The Mangarevan morpheme for "swim" is /kau/ which in Hawaiian means "to put or place". These examples illustrate the problem as it confronts a speaker of Hawaiian, but there are also examples for the other speech communities.

It will be seen that the spurious cognates are of three types. First there are those morphemes which are the same in shape for two varieties of speech but which have different meanings. The similarities in shape may simply be fortuitous. Then there are those cognates, which through a sound shift, will no longer be associated by the informant with the cognate meaning but rather with some other meaning. Tongan /ua/, "two", corresponds to Hawaiian /lua/, "two", but the sound shift has rendered it identical in shape to Hawaiian /ua/,

"rain", and is understood as such. Finally, reduplication may modify a base in such a way that the resulting shape will not carry the original meaning. Thus the base /vae/, "foot", is modified by complete reduplication to become /vaevae/ in Tuamotu speech. Something other than complete reduplication is probably operative in the word /wawae/ in Hawaiian speech. The shape /vaevae/ means "to select".

A second aspect of word meaning which results in an apparent increase in recognition is brought about by the existence of infrequently used words which are cognate with the common terms from another speech community. These infrequently used terms were not counted in the cognate computations since only the most commonly used terms were selected. However, the existence of these forms would provide for comprehension of the corresponding items from another speech community. This is illustrated by such Tahitian words as "water" /pape/, "eat" /tama'a/ and "not" /aita/. Although these are the commonly used forms in Tahitian, nevertheless most Tahitian informants recognized the Hawaiian words /wai/, /'ai/, and /'ole/ or /'a'ole/, but Hawaiians did not recognize the Tahitian forms.

Syntax. Factors of syntax are revealed in the sentence tests and show a good deal of variety. However there are many elements which are found throughout Polynesia as well as some with a more restricted distribution. All the Polynesian tongues make use of particles indicating nominal case.



and verbal aspect. Also found generally throughout Polynesia are two classes of possessives, reduplication of bases, and directional particles indicating place with reference to relative positions of speaker and addressee. All varieties of speech have personal pronouns which show singular, dual, and plural, and inclusive and exclusive first person dual and plural. Finally, all the speech communities studied employed the use of the causative prefix. (Elbert, 1953, p. 162)

There were certain syntactical aspects of the speech material obtained from the informants which were shown to be restricted in their geographical distribution. Thus the "ki-" type pronouns were found in the Kapingamarangi material as were also "s" type possessives. The short pronouns were used by the informants from Samoa, Tonga and Uvea. This was also coupled with a difference in word order in the last three island areas. Kapingamarangi showed some distinction in word order, having the subject often in the initial position. More unusual, however, were the idiomatic verbal aspect constructions and subordinate verb linking particles.

It would seem that from a general view of syntax the test material can be grouped into three divisions: Kapingamarangi in one group; Samoa, Tonga and Uvea in another; and the remaining eight tongues falling into the third group. This seems to be born out somewhat with a more detailed comparison of the substantive and verbal particles drawn from the material in Appendix C. Table XIX shows that within the third group of eight speech communities there is greater

TABLE XIX

## COMPARISON OF SYNTACTICAL ELEMENTS

<u>Particles</u>	Es	Ha	Ka	Ma	Mi	Mq	Ra	Sa	Ta	To	Tu	Uv
<u>Nominal:</u>												
<u>Subject:</u>	HE E	HE	TI	E	HE E	HE E	E	SE	E	HE 'E 'EHE 'A 'AE	E	E
<u>Object</u>	KO I	'O I	KO KI KITI	KO KI	KO KI I	'O I IA	KO I I	'O IA	'O I	KO I	'O I IA	KO KI
<u>Plural</u>	MAU	MAU	NATAU				AU		MAU	MAU	MAU	'U
<u>Verbal:</u>	MA GA	HA				GA						
<u>Progressive:</u>	ANA NEI	ANA NEI	ANA	ANA	ANA	ANA			NEI		NEI	
<u>Imperfect:</u>	KA	E		KA		A	KA	LO'O IA	'A		'A	E
<u>Future</u>	E	E	'E KA KI MAKA-	KA	E	E	E	TE	E	TE	E	E
<u>Past</u>	KU I	UA I	RE NE	KU I	KUA I	UA I	KUA	UA SA	UA I	KUO ANE	UA I	
<u>Subordinate Verb</u>	E	E KE	E PORO	E	E KIA	E	E KE	O S	I	NA 'A KE		NE 'E 'O
<u>Passive Imperative</u>	HIA	'IA		'IA	GIA	TIA -A		INA	HIA AHIA		HIA AHIA	

similarity in the shapes of the particles used with nouns and verbs than there is with the particles used in Kapingamarangi, Samoa, Tonga and Uvea.

Non-linguistic Factors. The amount of communication that has been measured between the speech communities dealt with in this report is not only a product of purely linguistic elements but also of the history of the individuals concerned. This in turn has been a product of their geographical proximity of one group to another and the amount of travel and learning, and finally adoption of certain elements from one community to another. Experiences in the field as well as the tests show that Tuamotua speech in the western Tuamotus near Tahiti has become greatly Tahitianized. The informant used in this report was from the western Tuamotus and her speech was shown to be almost wholly intelligible to Tahitians.

A second factor effecting the test results has been bilingualism. Nearly all Polynesian speakers dealt with in this report were bilingual. Particularly in French Oceania the second language is another Polynesian tongue, Tahitian. The sophistication thus gained surely would help break dependence upon one's own phonological values and would increase vocabulary. Where the second language was a European language, the experience gained did not seem to be too useful in application to the understanding of another Polynesian tongue.

An aspect of a non-linguistic nature which has not been dealt with here is the problem of how long it would take an individual from one speech area to learn the speech of another area. If the results of this report are valid, the learning process would be simplest when making the transition between the more closely linked languages.

Language-Dialect Division

The foregoing discussion of the factors involved in the comprehension of speech within Polynesia will be of assistance in the main undertaking of this report which is the placing of language and dialect boundaries in Polynesia. The terms language and dialect should indicate meaningful relationships of speech community to speech community, and the grouping of these speech areas into larger speech unities. The fact that the varieties of speech on these islands are related is abundantly clear. In one sense it can be said that there is one Polynesian language since some communication takes place between speakers from these islands. It is, however, the order of difference between varieties of speech which is of interest here. It is hoped that the results of this work will add to previous research and in some measure be consistent with and aid in the interpretation of previously demonstrated facts of the various forms of Polynesian speech.

Therefore in applying the terms to the Polynesian speech communities the extent of difference or similarity between what will be termed different languages will not necessarily be of the same order of magnitude as that which exists between two European languages, say English and German. Likewise dialects within one Polynesian language may or may not show greater affinities one to another than do two dialects of English. What will be shown is that those speech communities which make up one dialect will show greater mutual intelligi-

bility with respect to other speech communities within the same dialect than they do with regard to those speech communities not in the dialect. In a similar manner the speech communities making up one language should show greater affinities to each other than they do to speech communities which fall within another language area.

A second fact to be born in mind is that while the tests have been conducted on individuals and have been a measure of individual performance, the inferences we are attempting to make are with regard to the languages and not to individuals. It is therefore necessary to do a certain amount of interpolation. The first step taken was the incorporation of the scores of multiple informant tests. For the purpose of sentence evaluation these are: Ma. 3; Mq. 1; Ra. 1; and To. 2. Mq. 1 and Ra. 1 were used only in evaluating the comprehension of the informant's native language. The scores of neither Ma. 3 nor To. 2 were found to differ greatly from the scores obtained by a single informant session. With the Mangarevan informants the scores for the single informant sessions were still higher for the most part than the multiple informant sessions. It does not seem that two heads are better than one when it comes to expressing in a single statement that which was understood by more than one person. However, the Tongan multiple group did seem to perform better than the single informant. This is in part attributable to the fact that the multiple Tongan group had learned a good deal of Samoan. Where compared on the Hawaiian and Kapingamarangi

tests the scores were not greatly different and certainly not different enough to change the final analysis.

In order to round out the picture as much as possible an attempt has been made to incorporate the data on the speech communities for which there are no mutual scores. This is a calculated risk for it is possible that the mutual scores would change somewhat the order of language pairs on the scale of mutual intelligibility. However this does not appear too likely since except for certain discrepancies clearly the result of Polynesian bilingualism, the mutual scores do not differ greatly from the scores obtained by testing only in one direction. This is illustrated by the deviation range of mutual intelligibility scores from the single scores. (Table XXI)

Therefore in viewing the entire data, the first problem is to determine whether or not there are pairs of speech communities whose mutual intelligibility scores will warrant the application of the term separate language to their relationship. While there is a wide range up and down the scale, it is clear that between certain speech communities very little communication takes place. Granted that there are differences between some speech communities which are on the order of distinctions between languages, the problem then becomes one of establishing a meaningful point at which to draw this language boundary. It would seem reasonable to draw these boundaries at the points of greatest cleavage in the intelligibility scale. This procedure is essentially the same as that used in

dialect geography when one plots isoglosses and then draws dialect boundaries along those lines where there is a concentration of isoglosses. (Kurath, 1949) These points are located most conveniently at 70%, 55%, and 35%. One might choose 70% or even 55% as this language boundary. Such a demarcation line in these data would leave us with almost all speech communities representing separate languages. While there is nothing inherently wrong with this conclusion, it nevertheless would fail to illustrate certain important relationships between the speech communities and would likewise appear to ignore conclusions arrived at through lexical and grammatical comparison. Thus with nearly all the speech communities designated as separate but related languages, the degrees of relatedness would not be demonstrated. One would also seem to be ignoring the fact that the so called eastern Polynesian speech communities share many language elements with each other which are not shared with western Polynesian island speech. The reverse is also true. (p. 52) It therefore seems most meaningful to establish 35% intelligibility as the upper limit for speech community pairs which differ sufficiently so that they may be presented as representing separate languages. Speech community pairs which may be included within one language but whose mutual intelligibility scores fall below 55% would then be considered to be showing major dialect difference. Those pairs whose scores fall below 55% would then be considered to be showing major dialect difference. Those pairs whose scores fall below 70% and above 55%



may be included within a sub-dialect. Those pairs of speech communities whose scores fall above 70% are therefore termed a single dialect.

These data are summarized graphically on the language-dialect schematic. (Table XXII) A word must be said as to the tentative nature of Maori. Since only limited testing was conducted for Maori, it is not possible to place it in close relationship with any other speech community. The writer would venture a guess that with more testing, it would be placed within the eastern Polynesian language. The Tuamotus also poses a problem since within the Tuamotus heterogeneity of speech forms seems to be characteristic. One would suspect that this can be attributed in part at least to the heavy influence of Tahitian in the western Tuamotus. Takaroa, the Tuamotu island from which the text material for this project was obtained, is located in this western area. If speech samples from a more eastern island had been used the results would probably have been different. The reader might prefer to substitute the term Takaroa for Tuamotu in Table XXII and avoid possible misinterpretation of the chart.

It is also significant to note that both Hawaiian and Easter Island do not stand in close relationship to all the other members of the eastern Polynesian language. However, neither speech community shows higher than 35% mutual intelligibility with any language outside of the eastern Polynesian language. It therefore seems a logical supposition to state that geographical isolation over time is leading to the sepa-

ration of Easter Island and Hawaiian speech into separate languages.

Finally, it appears that Polynesian speech groups which differ sufficiently to be terms separate languages are four in number, as western Polynesian speech communities do not show the homogeneously close affinities demonstrated within eastern Polynesia.

In conclusion, it may be said that testing for mutual intelligibility is a useful supplement to lexical and grammatical comparisons but most probably only in areas where speech communities show a relatively close genetic relationship.

TABLE XX  
MUTUAL INTELLIGIBILITY SCALE

<u>Range</u>	<u>%</u>	<u>Language Pair</u>
06% - 09%	6.4	Ha. - To.
	7	Ta. - To.
	7.3	Tu. - To.
	9	To. - Mq.
14% - 19%	14	To. - Ra.
	15.3	To. - Ma.
	18	Sa. - Ra.
	19.5	Sa. - Ta.
21% - 28%	20.8	Sa. - Tu.
	23	Sa. - Mq.
	24.3	Sa. - To.
	25.5	Sa. - Ha.
	26.8	Sa. - Ma.
	27.8	Ha. - Ra.
29% - 36%	None	
. . . . .		
37% - 45%	36.7	Ha. - Tu.
	37	Ha. - Ma.
	37.5	Ha. - Ta.
	41.2	Ha. - Mq.
	45.3	Mq. - Ra.
46% - 57%	None	
58% - 60%	58.5	Mq. - Ma.
61% - 70%	65.8	Ra. - Ma.
. . . . .		
70% - 80%	76	Tu. - Ma.
	76.5	Tu. - Mq.
80% - 90%	82.3	Ra. - Tu.
90% - 100%	93	Ra. - Ra.
	93.4	Mq. - Mq.
	94	Ha. - Ha.
	97	Tu. - Tu.
	97	Sa. - Sa.
	97.5	Ma. - Ma.
98	To. - To.	

TABLE XXI  
INTELLIGIBILITY SCALE FOR  
SPEECH COMMUNITY PAIRS LACKING MUTUAL SCORES

		<u>Deviation</u>	
0% - 10%	9.5	Uv. - <u>Ha.</u>	-2.4 /9.0
10% - 20%	11.5	Ka. - <u>To.</u>	-10.0 -1.0
	11.5	Ka. - <u>Ta.</u>	-2.2 /1.0
	13	Ea. - <u>Sa.</u>	-2.5 /7.8
	13	Ka. - <u>Tu.</u>	-3.0 /7.5
	14.7	Ka. - <u>Ha.</u>	-2.4 /9.0
	14.9	Ka. - <u>Sa.</u>	-2.5 /7.8
	15	Ea. - <u>To.</u>	-10.0 -1.0
	19	Ka. - <u>Ra.</u>	-2.7 /10.0
20	Ka. - <u>Hq.</u>	-3.0 /7.5	
20% - 30%	24.7	Mi. - <u>Ha.</u>	-2.4 /9.0
	26	Ka. - <u>Ma.</u>	-9.0 /9.8
	28	Ea. - <u>Ha.</u>	-2.4 /9.0
	28.5	Mi. - <u>Sa.</u>	-2.5 /7.8
	29.5	Ea. - <u>Tu.</u>	-3.0 /7.5
30% - 40%	30.5	Ea. - <u>Ta.</u>	-2.2 /1.0
	33	Uv. - <u>Sa.</u>	-2.5 /7.8
	34.5	Ea. - <u>Ha.</u>	-2.7 /10.0
. . . . .	39	Ma. - <u>Ta.</u>	-2.2 /1.0
40% - 50%	41.5	Hq. - <u>Ta.</u>	-2.2 /1.0
	43	Ea. - <u>Hq.</u>	-3.0 /7.5
	47.5	Ea. - <u>Ma.</u>	-9.0 /9.8
50% - 55%	None		
55% - 60%	None		
60% - 70%	63.5	Ra. - <u>Ta.</u>	-2.2 /1.0
70% - 80%	73	Uv. - <u>To.</u>	-10.0 -1.0
80% - 90%	None		
90% - 100%	92	Tu. - <u>Ta.</u>	-2.2 /1.0

Note: The speech community of the listening informant is indicated by the underline. The language being tested is not underlined. Deviation represents the range within which the mutual scores differ from the single scores for the particular language indicated.

TABLE XXII  
LANGUAGE-DIALECT SCHEMATIC

KAPINGAMARANGI	HAWAII						
TONGA - UVEA	<table border="1"> <tr> <td>TAHITI-TUAMOTU</td> </tr> <tr> <td>.....</td> </tr> <tr> <td>RARONTONGA</td> </tr> <tr> <td>.....</td> </tr> <tr> <td>MARQUESAS . MANGAREVA</td> </tr> <tr> <td>.....</td> </tr> </table>	TAHITI-TUAMOTU	.....	RARONTONGA	.....	MARQUESAS . MANGAREVA	.....
TAHITI-TUAMOTU							
.....							
RARONTONGA							
.....							
MARQUESAS . MANGAREVA							
.....							
SAMOA							
MAORI ?	EASTER ISLAND						

## LEGEND:

Language Boundary (35%)	=====
Major Dialect Boundary (55%)	=====
Sub-dialect Boundary (70%)	.....

Note: Within the eastern Polynesian language, those speech communities showing greater affinity to one another are in contiguous position. The non-contiguous speech communities are not sufficiently mutually intelligible for inclusion within one language.

APPENDIX A  
SENTENCE TESTS

This appendix contains the sentence tests from the twelve Polynesian communities arranged in alphabetical order. The underlined units indicate the key elements of each sentence. The total number of key elements is indicated at the end of each section.

EASTER ISLAND SENTENCES

1. E GUTU NUINUI TEIE KOPE.  
This boy has a large mouth.
2. KOPE VA'E PAPAKU TE TAU MO TE HUTI HAKAKE'OKE'O.  
The boy with skinny legs can run fast.
3. ME'E ROROA TE ROURU O TETAHI GA VI'E, TE RAHI RA'A ME'E POPOTO.  
Some women have long hair, most have short.
4. TE GA POKI 'INA HE'URU I TE KIRIVA'E.  
The children don't wear shoes.
5. ME'E TAU TE MATA O TE UKA ERA.  
That girl has beautiful eyes.
6. ME'E ROA TO GAO O TE KOPE ERA.  
That boy has a long neck.
7. TE RAHI RA'A O TE MAU TAGATA ME'E TITIKA TO RĀTOU TU'A.  
Most people have straight backs.
8. ME'E PORIA HO'I TE HAKARI O TETAHI MAU TAGATA, E ME'E PAPAKU HO'I TETAHI NU'U.  
Some people have fat bodies, while some have skinny ones.
9. TE VIRI NEI TE NIHO O TETAHI O TE TAGATA RU'AU.  
Some old people lost their teeth.
10. ME'E HURU MAŪIUI IA, O TE ME'E KAI RAHI ROA 'OTA.  
He is in pain because he ate too much.
11. E ITE HIA TE PUA I TE KONA ROAROA.  
The flower is seen in far places.
12. 'EHIA HORA E TU'U 'OE I KAMPO?  
How many hours (does it take) to get to the country?
13. KA U'I NA KIRĀ! HE AHA TA'A ME'E MO TAKEA?  
Look over there! What do you see?
14. KOHAGA ANA AU MO NOHO MO KAI KO ROHIROHI ANA AU.  
I'm going to sit down so I won't get tired.
15. KA NOHO ITIITI KOE.  
Relax.

EASTER ISLAND SENTENCES (cont.)

16. TE MANA'O NEI TE TAGATA E ANA I ME'E, MANA'O NEI RA AU 'INA.  
People think he did it, but I don't think so.
17. 'INA E KOKORI TE ME'E ERA.  
Don't play with that thing.
18. HAKAROGO ANA AU ME'E RAHI TE HORA.  
I hear (that) many times.
19. KU MANA'U RIVARIVA ANA AU I TE ME'E ERA, ME'E RIVARIVA ROA.  
I thought about that thing, it's very good.
20. KU KI 'A AU KIAIA.  
I spoke to him.
21. KI MAI 'A PETERO E OHO APŌ.  
Pedro said he will leave tomorrow.
22. ME'E RAHI TE TAGATA I MANA'O PEIRA.  
Many people think that way.
23. KU ARA ANA AU I TE PO'A KU E'A KI HAHO.  
I got up early in the morning and went outside.

Total number of key elements: 115



## HAWAIIAN SENTENCES

1. HE 'OHANA NUI KO'U.  
I have a big family.
2. 'EHIA PO'E O KO KOU 'OHANA?  
How many people in your family?
3. 'EKOLU O'U KAIKUA'ANA A HE HO'OKAHI KAIKAINA.  
I have three older sisters and one younger sister.
4. HE 'EKOLU O'U MAU KAIKUNANE.  
I have three brothers.
5. 'A'OLE E OLA NEI KO'U MAU KUPUNA.  
My grandparents are not living.
6. UA NOHO ANEI 'OE ME KOU MAU MAKUA I KELA MAKAHIKI AKU MEI?  
Did you live with your parents last year?
7. 'O KU'U HOALOHA KA I NOHO, AKA I KEIA MAKAHIKI A'E  
E MALE ANA IA A NOHO ME KANA WAHINE.  
My friend did (live, stay) but next year he will get married and live with his wife.
8. MAKEMAKE 'OIA I KA NUI O NA KEIKI.  
She want to have many children.
9. MAKEMAKE 'OIA HAU'OLI A E IKAIKA KANA MAU KEIKI.  
She wants her children to be happy and strong.
10. MANA'O AU HE MEA MAIKA'I KA NUI O NA KANAKA KOKUA I KA HANA.  
I think it is a good thing for many people to help with the work.
11. I KO'U WA 'U'UKU UA KOKUA AU I KO'U MAKUAHINE A ME KO'U MAKUAKANE.  
When I was young I helped my mother and my father.
12. KE LOA'A KA'U MAU KEIKI E KOKUA MAI ANA LAKOU IA'U.  
When I have my children they will help me.
13. I KO'U NUI 'ANA A'E HIKI IA'U KE HANA I NA HANA A NA WAHINE  
'O KA ULANA MOENA A ME KA HUMUHUMU.  
Now that I'm grown up I can do woman's work, weaving mats and sewing.

HAWAIIAN SENTENCES (cont.)

14. MAKEMAKE AU I KĀNE MĀKAUKAU I KA MAHI'AI A ME KA LAWAI'A.  
I want a man skilled at farming and fishing.
15. 'OWAI ANA 'OIA? 'OWAI LA?  
Who will he be? I wonder.
16. I KE AHIAHI, MAHOPE O KA PAU 'ANA O KA HANA, HE MEA  
MAIKA'I E KŪKA'I KAMA'ILIO ME KO'U 'OHANA.  
In the evening after the work is finished, it is nice  
to talk with my family.
17. MELE MAI NA HOALOHA O MĀKOU MAHOPE O KA 'AINA AHIAHI KE  
MAHANA KA PO.  
Our friends sing after dinner when the night is warm.
18. MAIKA'I KO LAKOU LEO KE HO'OLOHE AKU.  
Their voices are pleasant to hear.
19. I KE AO, I KA WĀ E PA'AHANA ANA NA KĀNAKA MAKUA, PA'ANI  
NO NA KEIKI.  
During the day when the parents are busy the children  
play.
20. HE HANA NO LĀKOU I NA MEA 'E A'E.  
They do other things too.

Total number of key elements: 180

KAPINGAMARANGI SENTENCES

1. KITĀTOU E ROGONO NIA RE(O) O SATAU MĀTUA.  
We hear the voices of our parents.
2. MĒMĀ E KAHIKAHI KITĀTOU PORO KI RO MOI E KĪ.  
They call to us to come back and sleep.
3. SATAU MATAKOA KITĀTOU NE KĪ, MATARIA SATAU TUAHINA TANE  
MO SATAU TUAHINA AHINA KA TAERO KI RUATA TAEAO.  
We sleep with our brothers and sisters until dawn.
4. SATAU MATAKOA NOKO RIKI, KITĀTOU TIKI NOHO I TAHA I TE PŌ.  
When we were little we didn't stay out at night.
5. TI MATAKOA MAKA PŌ, KITĀTOU E MATAKU KA HURA KI SATAU HARE.  
When it was night we were afraid and went home.
6. TOROMENEI KITĀTOU HAKARE MATAKU I TI PŌ.  
Now we are not afraid at night.
7. KOE E NOHO I HOGO HENUA TAMANA?  
Do you live on a large land?
8. O MATOU MĀTUA RE NOHO I HOGO TOU HENUA?  
Did your ancestors live on your land?
9. KOE HANI MOI MAKAHE KI TOKU HENUA?  
When will you come to my land?
10. TOKU IHOA E HIHAI ATU KITI KOE PORO KI MATA KI TŌNA HARE.  
My friend wants you to see his house.
11. TO MATAKOA MAKA HANI MOI KE KOE KA KI I ROTO SATAU HARE.  
When you come you will sleep in our house.
12. KITĀTOU HUWOKOTO E MIAMI IKORO.  
We will all eat there.
13. TI HARE TĒRĀ RE TURI TI HARE TĒNEI.  
That house is smaller than this house.
14. TI HARE TĒRĀ RA NE HAU KO SUAHINATANE O TOKU IHO(A).  
That house was built by the brother of my friend.
15. TO MATAKOA MAKA TAE IKORO, KITĀTOU E HAI SATAU HAKAMIAMI.  
When we get there we will have (make) our feast.

KAPINGAMARANGI SENTENCES (cont.)

16. TI GATAU TĒRĀ NE HANI, TIKOWA KIMĀTOU NOKO IAI MATAU PIKI  
E ROKO(O), KIMĀTOU E HAI TI MATAU HAKAMIAMI.  
 Last year when we had many pigs we had a feast.
17. MA KOE NE KĀ MAI AI IKA TURI KITĀTOU E KAI NIA MA.  
 If you bring some fish we will eat them.
18. TI IMU RE HUKE KOAU.  
 I dug the oven.
19. TI KĀREKE PEHE TĒRĀ E HAI KO TI KAU TO MATAKOA MAKA  
HAKASAGA?  
 Which dances will the people do when you leave?
20. MA KOAI E KOWATU HATAU KISAKI KITI KOE?  
 Who will bring you presents?

Total number of key elements: 124

MANGAREVA SENTENCES

1. KU TIPITIPI 'IA TE UTU TIARĀKAU.  
The woods was cut down.
2. KU TIMAI 'IA TE PUAKA.  
The pig was killed.
3. NUINUI TA'AGA.  
The supply is large. (There is a lot of it.)
4. KOMUA, KAKORE AU I 'AKAROROGO MARI'E.  
At first, I didn't understand well.
5. KU TAU ATU RĀTOU KI TETA'I MOTU.  
They landed on an island.
6. E 'ERE A ARANUA NEI KI 'EA?  
Where does this road go?
7. KU APOAPO MARI'E 'IA KOIA.  
He was well received.
8. E TAGATA 'ARATOA NUI.  
A very strong man.
9. E KORE KOE E MOURI.  
Don't you become excited.
10. KU PORO KI TE REO NUNUI ATOA, KI TE VARAKARAGA ATU.  
She gave me a great shout when she saw it.
11. MEA 'ARAKE AKE KIAKU TETA'I.  
The other one is better for me (as far as I'm concerned).
12. 'AO MAI, KA 'AO TĀTOU KI TE 'AKAIRIGA.  
Come, we'll go to the home.
13. MEA KA 'ORO TE UA.  
It's going to rain.
14. E POROTU KIAKOE MEA AKATARI MAI KI TOKOE MATATAU.  
You may bring your friend.
15. E KORE KOE E 'AKATATA, A VA'I RIRI'A A MEA ANA.  
Don't go, that is a dangerous place.
16. I REIRA NOTI A TAGATA ARA I TE A'IA'I.  
That person is there even in the evening.

MANGAREVA SENTENCES (cont.)

17. I REIRA 'UA MĀTOU I TE TAUGA MAI O TE PA'I.  
We were there for the arrival of the ship.
18. KU VIKI AU, KAKORE RA AU I TAE.  
I ran fast but I didn't get there. (catch up.)
19. KARUA A KOROI KOIA KI TE TATARIRAGA.  
He's been waiting for two hours.
20. E 'AO 'UA MAI A TAGATA ANA ME TĀTOU.  
That person came with us.
21. E TA'I 'URU NOTI TO KORUA RU'ARU'A RAGA.  
The neight of you two is the same.
22. 'AO TĀTOU KI TETA'I KAOKAO.  
Let's go over to the other side.
23. KU TUTAKI ATU TANE KIANA INENA'I.  
Tane met him yesterday.
24. KAKORE KOIA E POROTU KI A TAGATA ARA.  
He is no good as far as that person is concerned.
25. E 'AE MAI ANA TE RAGI KI TE POROTU RAGA.  
The sky is clearing up.
26. E MEA MĀTOU KA 'AO KI TE ATUTA'A.  
We're going to go to the countryside.

Total number of key elements: 97

MAORI SENTENCES

1. HE PAI KIA IA TANA MAHI.  
He likes his work.
2. KAHORE TANA WAHINE E PIRAGI KI TE MAHI.  
His wife doesn't like the work.  
  
KI TAKU PAKARO HE MAGERE AIA.  
I think she is lazy.
3. KI ATU AU "KIA TERE." EGARI KA KATA HOA MAI AIA ME TE ATA HAERE TONU.  
I said, "Hurry up.", but she just laughed and kept going slowly.
4. I AU E TAMARIKI ANA I HIAHIA AHAU HE TAKUTA AHAU.  
When I was a child I wanted to be a doctor.
5. KUA KORE ERA PAKARO IA AU I MAIANEI.  
I don't have that idea now.
6. KO TAKU TAMA HE TAKUTA.  
My son is a doctor.
7. HIAHIA KE AHAU, KI TE MAHI PAMU ME TE HI IKA.  
I like to farm and fish.
8. INANAHI KA MAU I AHAU E PA GA IKA NUNUI ME TE TUNA KOTAHI.  
Yesterday I got four large fish and one eel.
9. ME HE MEA, KA MAU I AU HE IKA APORO KA HOKOGIA E AU NA KA TAGO KAI MAI I TE TOA.  
If I catch fish tomorrow I will sell them and buy some food in the store.
10. E HIAHIA ANA HOKI AU KIA RIRO MAI TETAHI KAKAHU ME TETAHI NAIHI.  
I also want to get some cloth and a knife.
11. KA HO ATU E AU TE NAIHI KI TAKU HOA.  
I'll give the knife to my friend.
12. KA TAE KOE KI REIRA KA KAI HAKARI TATO.  
When you get there we will have a feast.
13. I TERA TAU KA KAI HAKARI MATOU, KA KAI TONU MATOU KIA KI RA ANO.  
Last year we had a feast and we ate till we were full.
14. HARI KATO A MATOU I TE PAI O A MATOU MAHI.  
We were all happy and had a good time.

MAORI SENTENCES (cont.)

15. MEA PATU TE POAKA KI TE NAIHI. NA TAKU MATUA I PATU.  
The pig was killed with the knife. It was my father who killed it.
16. NA AKU TUAKANA-TANE I KERI TE HĀGĪ.  
My brother dug the oven.
17. NA KA HAERE KOE, KO EHEA GA KANIKANI E MAHIA E RĀTOU?  
When you leave, what dances will be done by them?
18. MA WAI E HARI MAI GA TAOGA?  
By whom will the presents be brought?
19. KA HAERE TATA TONU MAI KOE?  
Will you come back soon?
20. HAERE RA. KA HOKŪ AU I NAIA NEI.  
Goodby, I'm going now.
21. E MOKEMOKE ANA MĀTOU KIA KŌUTOU. KĀUA E WAREWARE KIA MĀTOU.  
We miss you all, so don't forget us.

Total number of key elements: 118



MARQUESAN SENTENCES

1. AHA MEA MEMAO TE KA'AVAI?  
How far is the village?
2. MEA HANA MAE'A.  
It is an easy task.
3. UA TO'O MĀTOU O TO 'ĀTOU KAHU.  
We took their clothes.
4. TUMOE NUI TE HIAMOE TINA O TE VAHINE.  
The girl went to sleep very late.
5. KERE TIA NA TE MEA E HA'AHA'A TO IA.  
She was struck because of his anger.
6. UA MOTU TOIA 'I'IMA I TE KOHE.  
His hand was out by the knife.
7. A'UA'U ATU 'OE.  
Go after (him) quick!
8. 'A'O'E HE 'ENATA I HA'AMETA'U TIA.  
He's not a person to be frightened. (He's not afraid)
9. 'A'O'E I TU'UA.  
(It) wasn't left. (He didn't leave it.)
10. UA TUNU TE KUI I TE KAIKAI NO TE POPOU'I I 'OTO O TE FA'E.  
The mother is cooking the food for the morning inside of the house.
11. I VAHO O TE FA'E TE MOA.  
The chicken is outside of the house.
12. IĀ 'AVEI ME 'OE A PE'AU ATU 'OE A TU'U MAI IĀ'OE TE PUA.  
When you meet tell her to give you the flower.
13. 'A'O'E AU I 'ITE IHEA TOIA 'EKA.  
I don't know where he lives.
14. MEMAE TŌ'U NIHO.  
My tooth hurts.
15. MEA 'OA TO'OE TIA'I TINA IA'U?  
Were you waiting for me long?

MARQUESAN SENTENCES (cont.)

16. 'A'O'E AU I 'ITE AHA NAIA I HANA, MEA 'Ā NA TITAHĪ I HANA.  
I don't know if he did it but somebody did.
17. 'A'O'E AU E HE'E O'IO'I IĀ TIHE TO 'ĀTOU HOA.  
I won't go tomorrow when their friend arrives.
18. MEA HA 'ATAETAE AU IĀIA NA TE MEA MEA MEITA'I.  
I like her because she is kind.
19. KO'ANA IĀ'OE IĀ HE'E MEI TE MEA E HUI PONIHO'O MAI.  
You can go if you come back promptly.
20. UA TOPA 'ĀTOU MEI 'UNA O TE VA'A.  
They fell off the canoe.
21. ENĀ TE HOE I TE TUA O TE FA'E.  
There is the paddle behind the house.
22. UA TAHA MAI IO'U 'A'O'A I 'ITE MAI IA'U.  
(He) came toward me but he didn't see me.
23. AHA E TEKAO TOITOI? E, 'OIA IHOA.  
Is that really true? Yes, of course.
24. 'A'O'E AU E HE'E.  
I'm not going.
25. KAIKAI IA ME MĀTOU.  
He ate with us.

Total number of key elements: 108

RAROTONGAN SENTENCES

1. KA 'AGA'AGA TĀTOU POUROA KE RAUKA TĀTOU I TE KAIKAI.  
We all work to get food.
2. KARE E PARUPARU I TE AU TAIME.  
It isn't always tiresome.
3. POUROA TE VA'INE E TE TANE TAUTURU I TE TIKI I TETAI KAI.  
All the women and men help in the search for food.
4. KA 'AERE TE TAMARIKI E TO RATOU METUA RU'AU.  
The children go with their grandparents.
5. ME MĀTA RĀTOU KA RAUKA RATOU I TE 'AERE I TE 'API I TE PŌPOGI.  
If they are big they can go to school in the morning.
6. TE TĀNE KA TIKI I TE TARO E KA KAKE I TE NIU.  
The man gets the taro and climb the coconut tree.
7. MĀTA TE MATAGI NO REIRA KUA TOPA TE URU KI RUGA I TE 'ENUA.  
The wind blew hard, therefore the breadfruit fell to the ground.
8. KARE MĀTOU I KITE I TE URU I TEIA RĀ NO REIRA KUA PĪRAU.  
We didn't see the breadfruit today so it is rotten.
9. APOPO KA 'APAI TO MĀTOU 'OA I TŌNA VAKA KI TE 'ENUA.  
Tomorrow our friend will take his canoe to the next land.
10. E MĀTARO MEITAKI 'AIA.  
He's a good sailor.
11. KA TIKI 'AIA I TETAI IKA NA MĀTOU E NA TĀNA KAIGA.  
He will catch some fish for us and for his family.
12. KITE 'AIA I TE TAUTAI, KOAU KARE AU E KITE.  
He knows how to fish but I don't know how.
13. 'INAGARO 'AIA I TE 'OKI MAI, KINO ROA TE MOANA.  
He wants to go back but the ocean is very rough.
14. 'OKE MĀTOU I TE PUAKA, RAUKA TĀNA MAGAO.  
We give the pig and get his shark.
15. 'INAGARO MĀTOU I TE KIRI NO TE PAU.  
We want the skin for the drum.

RAROTONGA SENTENCES (cont.)

16. E 'URA I TEIA PO NA TĀKU TUAGANE MEGITI E RUTU I TE PAU.  
There is a dance tonight. My small brother will beat the drum.
17. ME OTI TE VAKA O TANAROA. I TE MONITĒ IMUA 'AERE 'AIA TAUTAI.  
If Tanaroa's canoe is finished he will go fishing next Monday.
18. LOA TŌNA VAKA POTO TŌKU VAKA.  
His canoe is long, mine is short.
19. 'AERE AU I ROTO I TŌKU VAKA MEGITI KI TERĀ 'ENUA MEGITI TIKI I TETA'I PŪPŪ.  
I'm going in my small canoe to that small land and search for some shells.
20. TE 'ENUA I TE PAE KARE E RAUKA I TE 'AERE, MAMAO ROA.  
(I) can't go to the land over there, it's too far.

Total number of key elements: 125

SAMOAN SENTENCES

1. 'O LO'O VALA'AU MAI I A'I MĀTOU E O ATU I LE 'AIGA I MOMOE.  
They are calling us to come home and sleep.
2. IA MĀTOU O ATU I LE FALE E MOMOE SE'I VAGANĀ SE ISI ASO.  
When we return to the house we sleep until the next day.
3. A 'O MĀTOU LAITI MĀTOU TE LĒ NONOFO 'UMI I LE PŌ.  
When we were young we didn't stay out long at night.
4. 'ĀFAI MĀTOU TE NONOFO 'UMI I LE PŌ, MATOU TE FEFEFE E  
O I LE 'AIGA.  
When we stayed out late at night we were afraid and went home.
5. 'O ASO NEI UA LĒ TOE FEFE MĀTOU I LE PO.  
Now we are not afraid of the night.
6. E TE FIA NOFO I SE MOTU TELE?  
Do you like to live on a large island?
7. SA NONOFO OU TUA'Ā I LENA MOTU?  
Did your ancestors live on that island?
8. O AFEA E TE SAU I LO MĀTOU MOTU?  
When will you come to our island?
9. UA MANA'O LA'U UŌ E TE SAU I LO'U FALE.  
My friend wants you to come to his house.
10. 'ĀFAI E TE ASIASI IA TE A'U, TĀTOU TE MOMOE I LO'U FALE.  
When you visit me we will all sleep in my house.
11. TĀTOU TE 'AI 'I'INĀ.  
We will all eat over there.
12. 'O LENA FALE E ITIITI I LO LENEI.  
That house is smaller than this one.
13. SA PAUINA LENA FALE E UŌ A LO'U USO.  
That house was built by a friend of my brother.
14. 'ĀFAI TĀTOU TE TAUNU'U IAI O LA A FAI SA TĀTOU 'ĀIGA TELE.  
When we reach there we will have a big feast.
15. 'O LE TAUSAGA 'UA MAYAL SA TELE A MĀTOU PUA'A I LE 'ĀIGA.  
Last year we had many pigs for the feast.

SAMOAN SENTENCES (cont.)

16. O LE A FAI E A'U LE UMU.  
I will make the oven.

17. 'AFAI TOU TE 'AU MAI NI I'A MĀTOU TE 'AI AI.  
When you bring some fish we will eat.

18. O LEĀ LE SIVA A FAI TĀTOU O?  
What dances (will they do) when we leave?

19. 'O AI E 'AU MAI A MEA ALOFA?  
Who will give the present?

Total number of key elements: 107

TAHITIAN SENTENCES

1. IĀ FANAU NA'E HO'E VAHINE, E HINA'ARO TĀTOU PAUROA E HI'O  
I TE? 'AIU.  
When a woman gives birth, we all want to see the baby.
2. E TAMATA TĀTOU I TE TAUTURU MAI TE MEA E NEHENEHE MAI TE  
'APA'I ATU I TE MA'A E TE 'Ō.  
We try to help if we can by bringing food and gifts.
3. E HA'APA'O TE MAU TŪPUNA I TE 'AIŪ, NO TE MEA E 'OHIPA  
TA TE METUA TANE E TE METUA VAHINE.  
The grand parents look after the baby, because the  
father and mother have work (to do).
4. MEA AU NA RĀTOU E NA REIRA.  
They like it that way.
5. IĀ ROHIROHI NA'E RĀTOU E RIRI RĀTOU.  
When they are tired they get angry.
6. MEA 'OA'O A TE MAU TAMARI'I NO TE MEA E FA'ATI'A NOA HIA  
TO RĀTOU MAU MANA'O.  
The children are happy because their wishes are ful-  
filled.
7. 'AITA I RAHI TA RĀTOU 'OKIPA, E HA'UTI NOA RĀTOU I TE  
RAHIRA'A O TE TAIME.  
They don't have much work. They just play most of the  
time.
8. E HA'API'I TE MAU TAMARI'I I TE FA'ATI'A 'A'AMU, NA NI'A I  
TE FA'ARO'ORA'A I TE PARAU A TE MAU TA'ATA PA'ARI.  
The children learn to tell stories by listening to the  
conversation of the adults.
9. TE HA'API'I NEI RĀTOU I TE PARAU O TE MAU MOTU TAPIRI MAI  
E TE HINA'ARO NEI RĀTOU E MATA'ITA'I IA TAE TO RĀTOU  
PA'ARIRA'A.  
They are learning about the near islands and they want  
to travel and visit them when they are grown up.

TAHITIAN SENTENCES (cont.)

10. E IHU PARAHURAHU TO TEIE POTI'I.  
This girl has a flat nose.
11. TE 'TTE NEI RĀTOU E 'E'ERE HO'E 'AHURU TO TE MAU TA'ATA.  
They know that people are not just alike.
12. E VAHA RAHI TO TEIE TAMAROA.  
This boy has a big mouth.
13. TE TAMAROA 'AVAE PI'AO'AO TE NEHENEHE E HORO 'OI'OI.  
The boy with the skinny legs can run fast.
14. MEA ROROA TE ROURU O TETAHI MAU VAHINE, TE RAHI RA'A RA  
MEA POTOPO TO IA.  
The hair of some women is long, the majority though is short.
15. TE RAHI RA'A O TE TAMARI'I 'AITA E 'O'OMO I TE TIA'A  
Most of the children do not wear shoes.
16. MEA NEHENEHE TE MATA O TERĀ MAU TAMAHINE.  
The eyes of those girls are beautiful.
17. MEA ROA TE 'Ā'Ī O TETAHI MAU TAMAROA.  
The necks of some boys are long.
18. TE RAHI RA'A O TE MAU TĀNE MEA 'AFARO TO RĀTOU MAU TUA.  
The backs of most of the men are straight.
19. MEA PORIA HO'I TE TINO O TETAHI MAU TA'ATA, MEA PARARAI  
HO'I TO TETAHI MAU PU'ERA'A.  
Some people have fat bodies, Some people have thin (bodies).
20. TE TOPA NEI TE NIHO O TE RAHIRA'A O TE TA'ATA RU'AU.  
The teeth of most old people fall out.

Total number of key elements: 117



TONGAN SENTENCES

1. 'OKU AU FIEFIA MO HOKU FAGA TEHINA. KOE'UHI KO HONO  
FAFAGA LELEI 'I MAUTOLU 'EHE 'E MAU MATU'A.  
My brothers and I are happy because our parents feed us well.
2. 'OKU LAHI 'AE ME'A KAI KEHEKEHE HE VAOTĀ.  
There are many different foods in the forest.
3. TEKE MA'U AI 'AE MEI SIAINE MO E PAOGO.  
You will find there the breadfruit, bananas and pandanus.
4. 'OKU IFO 'AE NIU PEA NA'E GĀUE LAHI 'AE KAU FEFINE HE TEUTEU 'A ME'A TOKONI.  
Coconut is tasty and the women work hard preparing it.
5. 'OKU 'IKAI KE MAU SA'IA AI, KA KO HAI TE NE FAI 'A GĀUE?  
We don't like it but who will do the work?
6. NA'E UTU 'AE TALO 'EHE SIANA HE 'OKU MAMA'O MEI 'API.  
The fellow dug up the taro which was far from the house.
7. NA'E PE'UGA PE 'ENAU TALO HE UIKE KUO 'OSI.  
Their taro is sufficient to last a week.
8. KO E TALO MO E MEI NA'E TUNU 'EHE FINEMĀTU'A.  
The mothers cook the taro and breadfruit.
9. LOLOTOGA 'ENAU GĀUE 'OKU IFO 'ENAU TALANOA MO E TAMAIKI.  
While they work they like to talk with the children.
10. 'OKU FA'A TŌ 'AE ME'A KAI HE EFU PEA FUFULU 'AKI 'AE VAI KE 'OUA 'E 'ULI.  
Frequently food falls into the ashes but we wash it with water so that it is not dirty.
11. NA'A MAU NOFO FALE 'ANEAFI HE TŌ 'AE 'UHA.  
We stayed home yesterday when the rain came.
12. KAI FO'I 'AKAU PE KOE'UHU 'OKU 'IKAI FAKAHELA HANO HAKA.  
(We) eat fruit because (we) don't bother cooking it.
13. NA'E FEHU'I MAI 'EHE 'EKU FA'E PE MA'U 'ANE FE 'AE SIAINE.  
My mother asked me where I got the bananas.

TONGAN SENTENCES (cont.)

14. NA 'U TALA KIHE TA 'AHINE NA 'U MA 'U HE TAU MAI 'AE VAKA.  
I said to the girl, I got (them) when the ship arrive.
15. 'OKU 'IKAI FE'UGA 'ALU MU'A 'O KUMI MAI HA ME'A.  
There isn't enough, go and look for some (more).
16. I HE HALA OFI KI 'API 'OKU 'IAI 'AE FU'U MEI 'E TOLU.  
On the road near the house there are breadfruit trees.
17. LOLOTOGA 'ENE KEI NO'UI NA'A NE FA'A TUKI PE'E IA 'AE MEI.  
While he was living he often pounded the breadfruit.
18. PEA NA'A NE FA'A GAAHI FAIKAKAI HE 'AHO KATOA PE  
He made pudding almost every day.
19. NA'E MAHAKI 'IA IA PEA SI'I MATE.  
Then he got sick and died.
20. KUO GALO HONO HIGOA KA KOU MANATU'I KO E TAMA FAKAKATA.  
(I) forgot his name but I remember that he was a humorous person.

Total number of key elements: 120

TUAMOTUAN SENTENCES

1. NA VAI I RAVE TĀKU TIPI? TĀKU NOA IHO IA TIPI MAITA'I  
AKE.  
Who took my knife? It was my best knife.
2. UA PURU ROA 'ONA I TE HOU I MURI AKE I TĀNA RAVE HAGA  
'OHIPA.  
He was sweating a lot after doing the work.
3. UA NOHO VAU I TAHIKI IHO I TE 'IRI TAMA'AHAGA NO TE  
TAMA'A.  
I sat down at the table to eat.
4. UA HORO HA'AVITIVITI NOA 'ONA NO TŌNA MEHAMEHA.  
He ran fast because of his fear.
5. UA FA'ATAUTAU 'OMA I TETARI TAPUKATIGA I RUGA I TE  
KĀRAUHAGA.  
He hung up some meat on the rafter.
6. E MEA TUPU 'OI'OI NOA TEIE HAGA MEI'A.  
These bananas grow quickly.
7. TEIE TA'OE I HOROGA MAI, TE HA'AMANA'O NEI AU.  
This is the one you gave me, I remember (it).
8. INĀHEA KOE I KAI AI?  
When did you eat?
9. A INU FA'ARAHĪ NO TE MEA MEA AU.  
Drink a lot because its good.
10. 'EHIA TA'OE I INU?  
How much did you drink?
11. UA TA'OTO'OTOAHĪA VAU I TEIE RUKI TA'ATO'A.  
I dreamed all last night.
12. UA KATU 'ONA I RUGA I TE TUREI HAKARI IĀ ROAKA MAI TE GORA.  
He climbed up the coconut tree to get some coconuts.
13. NAVAI I HARU TEIE PARU? 'E'ERE IA I TA'OE.  
Who caught this fish? It isn't yours.

TUAMOTUAN SENTENCES (cont.)

14. UA POI MAI 'ONA I TO'OE HAGA KAHU 'AORE RA 'ONA I  
FAKAKITE MAI E NOHEA RA TE ROAKA HAGA MAI.  
 He brought your cloths but he didn't say where he got  
 them.
15. 'O TERA IA TE HAGA VAHINE TAKU I REKO ATU.  
 Those are the women I spoke about.
16. NANA IHO IA E RAVE.  
 He'll do it himself.
17. 'O TEIE IA TAKU HURU E AU.  
 This is the kind that I like.
18. NA VAI TEIE HAVEKE? HOKU? 'AORE. NO'OE IA. 'O TEIE  
IA TOKU.  
 Whose is this canoe? Mine? No. It's yours. This is  
 mine.
19. 'E'ERE HOKI 'ONA I TE MEA KITE ROA ATU IANA.  
 He is not as smart as she.
20. 'ONA IA TE REVA ATU.  
 He'll be the one to leave.

Total number of key elements: 110

UVEA (WALLIS) SENTENCES

1. HOKI FANAU TE FAPINE PEA TOU FIAFIA 'O SIO KI TE TAMASI'I.  
After the woman gives birth we want to see the child.
2. E TOU 'AHI'AHI 'O TOKONI 'O FOAKI TE ME'A KAI MO'O OFA KI  
TE KAIGA.  
We try to help and give food as presents to the family.
3. E TAUPAU TE 'U KUI KI TE TAMALIKI, KO TE'UHI E GĀUE TĀNA  
'U MATU'A.  
The grandparents care for the child because his parents have a job (to do).
4. E NATOU LELEI IA KE FEIA.  
They like it that way.
5. KAPAU E VAIVAI E 'ITA'ITA.  
If they are tired they are angry.
6. E FIAFIA TE KAU TAMALIKI, KOTE'UHI E NATOU FIA FAITALIA.  
The children are happy because they do what ever they want.
7. MOLE LAHI TA NĀTOU GĀUE, E GAO'I NOA NĀTOU I TE LAKAGA FULI.  
They don't have much work and they just play most of the time.
8. E 'ILO'I E NATOU E MOLE TATAU TE HABA'I.  
They know that people are not all alike.
9. E IHU MENE TE KI'I TA'AHINE.  
The little girl has a flat nose.
10. E GUTU LAHI TE KI'I TAMA.  
The small boy has a big mouth.
11. KO TE TAMA E VA'E LOLOA E TAFUSI VAVE.  
The boy with long legs runs fast.
12. E TOKOSI'I TE 'U TA'AHINE E LAU'ULU LOLOA, KA E TOKOLAH  
E LAU'ULU NONOU.  
A few of the girls have long hair but most has short hair.
13. E TOKOLAH TE TAMALIKI E MOLE FAI TAKA.  
Most of the children don't wear shoes.
14. E MATA LELEI TE 'U TA'AHINE.  
The girls have beautiful eyes.

UVEA (WALLIS) SENTENCES (cont.)

15. E KIA LOA TE TAMA.  
The boy has a long neck.
16. E NĀTOU MAHALO NE'E INA FAI, KA KI AU MOLE KOIA.  
They think he did (it), but as for me (I think) it wasn't he.
17. 'AUA NA'A KE KAPA KIAI.  
Don't you touch it.
18. NE'E AU LOGO'I NI'IHI LAKAGA.  
I heard it many times.
19. E AU MANATU'I KIAI KO TE MEA LELEI 'AUPITO.  
I think about it because it is very interesting.
20. HOKI AU PALALAU LEVA KIAI.  
Afterwards I spoke to him.

Total number of key elements: 99

APPENDIX B  
BASIC VOCABULARY TESTS

This appendix contains the vocabulary items which were felt by the informants to be the most common form in their idiolects. Below the Polynesian terms is a schematic for showing which terms are considered cognate with which other terms. Terms which are cognates are located vertically with respect to the other cognate forms. If they are separated by a slash mark, /, they are not considered cognate.

BASIC VOCABULARY

Lang.	Items #	1.	2.	3.
		All	Ashes	Grass
Ea		PAURO	REHU	MAUKU
Ha		APAU	LEHU	MAU'U
Ka		HUWOKOTO	REHU	KEIGASORO
Ma		KOUROA	RE'U A'I	VEUVEU
Mi		KATOA	PUGAREHU	TOHERAOA
Mq		PAOTU	KEHU AHI	MUTIE
Ra		PAUROA	RE'U	MAUKU
Sa		UMA	LEPULEFU	MUTIA
Ta		PAUROA	REHU	MATIE
To		KATOA	EFU	MUSIE
Tu		PAUROA	REHU	MATIE
Uv		KATOA	LEPULEFU	VAO
Cognate groups:	Ea Mi Sa Ka	<u>a.c.</u>	Mq Ea Ka Ma Mi Uv	
	Ha To		Sa Ha	
	Ma Uv		Ta Ra	
	Mq		To	
	Ra		Tu	
	Ta			
	Tu			

Lang.	Items #	4.	5.	6.	7.
		Belly	Big	Bird	To bite
Ea		KOPU	NUINUI	MANU	GAU
Ha		'OPU	NUI	MANU	NAHU
Ka		SINAE	TAMAN(A)	MANU	KATI
Ma		KOPU	NUI	MANU	GAG'U
Mi		PUKU	NUI	MANU	GAU
Mq		KOPU	(TA'UTA'U)	MANU	NANAHU
Ra		KOPU	MA'ATA	MANU	KAKATI
Sa		MANAVA	TELE	MANU	U
Ta		'OPU	RAHI	MANU	HOHONI
To		KETE	LAHI	MANUPUNA	U'U
Tu		KOPU	TOREU	MANU	KAKATI
Uv		FATU	LAHI	MANU	HOHOGI
Cognate groups:	Ea Ka	Ea Ta Ka (Mq)	<u>a.c.</u>	Ea Ka Ta Sa	
	Ha /	Ha To /		Ha Ra Uv To	
	Ma Mi	Ma Uv Ra		Ma Tu	
	Mq /	Mi /		Mi	
	Ra Sa	Sa		Mq	
	Ta /	Tu			
	Tu To				
	/				
	Uv				

Note: a.c. - all cognate; (—) - not comparable; i.e., different meaning.



Lang.	Items #			
	8. Black	9. Blood	10. Bone	11. Breast
Ea	'URI'URI	TOTO	IVI	Ū
Ha	'ELE'ELE	KOKO	IWI	Ū
Ka	RURI	TOTO	IVI	HATAHATA AHINA
Ma	PAGU	TOTO	IVI	VAKAVAKA
Mi	MAGU	TOTO	FEUA	Ū
Mq	KE'EKE'E	TOTO	IVI	UMAUMA
Ra	KEREKERE	TOTO	IVI	KOUMA
Sa	ULIULI	TOTO	IVI	SUSU
Ta	'ERE'ERE	TOTO	IVI	TITI
To	'ULI'ULI	TOTO	HUI	HUHU
Tu	KEREKERE	TIKAHIRI	KEIGA	TITI
Uv	'ULI	TOTO	HUI	FATAFATA
Cognate groups:	Ea Ha Ma Ka Mq Mi Sa Ra To Ta Uv Tu	<u>a.c.</u>  <u>except</u> Tu	Ea To Mi Ha Uv / Ka Tu Ma Mq Ra Sa Ta	Ea Mq Ka Sa Ta Ma Ha Ra Uv To Tu Mi

Lang.	Items #		
	12. To burn	13. Claw-nail	14. Cloud
Ea	AMA	MAIKUKU	ATA
Ha	'A	(MIKI'AO)	AO
Ka	WERE	MATAUNIHA	KORORAGI
Ma	PAO A'I	MATIKUKU	ATA
Mi	WERA	MATIMATI	KAPUA
Mq	TAHU		AO
Ra	KA	MAIKUKU	TIAO
Sa	MU	MAI'U'U	AO
Ta	PA'APA'A	MAI'U'U	ATA
To	VELA	(PESIPESI)	'AO
Tu	AMA	(MITIKAO)	ATA
Uv	VELA	PANINIA	AO
Cognate groups:	Ka Ea Ha Ma Mi Tu Ra / To Mq Uv / Sa / Ta	Ea Ka Ra Ma / Mi Ra Uv Sa Ta	Ha Ea Ka Mq Ma / Ra Ta Mi Sa Tu To Uv

Lang.	Items #	16.	17.
	Cold	Come	Die
Ea	TAKEO	OHOMAI	MATE
Ha	ANU	HELE MAI	MAKE
Ka	MAKARIRI	HERE MAI	MATE
Ma	MAKARIRI	'AO MAI	MATE
Mi	MĀEKE	HAERE MAI	MATE
Mq	ME'ETO'E	HE'E MAI	MATE
Ra	ANU	'AERE MAI	MATE
Sa	MALŪLŪ	SAU	OTI
Ta	TO'E'ETO'E	HAERE MAI	POHE
To	MOKOMOKO	HA'U	MATE
Tu	TOKETOKE	HAERE MAI	HIGA
Uv	MOMOKO	HA'U	MATE
Cognate groups:	Ha Ka To Mi / Uv Mq Ra Ma / Ta Sa Tu / Ea	Ha Sa Ea Ka To / Mi Uv Ma Mq Ra Ta Tu	Ea Sa Ha / Ka Ta Ma / Mi Tu Mq Ra To Uv

Lang.	Items #	18.	19.	20.	21.
		Dog	Drink	Dry	Ear
Ea	PAIHEGA	UNU	PAKAPAKA	TARIGA	
Ma	'ILIO	INU	MALO'O	PEPEIAO	
Ka	PANA	INU	MAGO	TARIGA	
Ma	KURĪ	INU	MORŌ	TERIGA	
Mi	KURĪ	INU	MARŌKE	TARIGA	
Mq	NUHE	INU	MO'O	PUA'INA	
Ra	PUAKA AUA	INU	MARŌ	TARIGA	
Sa	MAILE	INU	MAGO	TALIGA	
Ta	'URĪ	INU	MARŌ	TARI'A	
To	KULĪ	INU	MOMOA	TELIGA	
Tu	GAEKE	INU	HAIKO	TARIGA	
Uv	KULĪ	INU	MOAMOA	TALIGA	
Cognate groups:	Ma All / Mi others Ta non- To cognate Uv	<u>a.c.</u>	Ha Ka To Ea Ma Sa Uv / Mi Tu Mq Ra Ta	<u>a.c. except Ha</u>	

Lang.	Items #	23.	24.
	22.	23.	24.
	Earth	Eat	Egg
Ea	'O'ONE	KAI	MAMARI
Ha	LEPO	'AI	HUA
Ka	KEREKERE RŪRI	MIAMI	GOKO
Ma	REPO	KAI	MAMARI
Mi	ONEONE	KAI	HUA
Mq	'EPO	KAIKAI	MAMA'I MOA
Ra	REPO	KAIKAI	'UA MOA
Sa	'ELE'ELE	'AI	FUA MOA
Ta	REPO	TAMA'A	HUERO MOA
To	KELEKELE	KAI	FUA'IMOA
Tu	GAERE	KAI	TOUO
Uv	KELE	KAI	PO 'I MOA
Cognate groups:	Ha Ka Ea Tu Ma Sa Mi Mq To Ra Uv Ta	<u>a.c. except</u>	Ka / Ta Ha Ea Ka Mi Ma / Ra Mq Ta Sa / To Tu Uv

Lang.	Items #	26.	27.	28.
	25.	26.	27.	28.
	Eye	Fat	Feather	Fire
Ea	MATA	NAKO	HURUHURU MANU	AHI
Ha	MAKA	KELEKELE	HULU	AHI
Ka	KOROMATA	KIRIS	GĀHURU	AHI
Ma	MATA	'INU	'URU'URU	A'I
Mi	KARU	GAKO	HURUHURU	AHI
Mq	MATA	KEREHI	HU'U	AHI
Ra	MATA	MATU	'URU'URU	A'I
Sa	MATA	PUTA	FULU	AFI
Ta	MATA	HINU	HURUHURU MOA	AUahi
To	MATA	GAKO	FULUFULU'IMANU	AFI
Tu	NOHI	HAVENE	HURUHURU MANU	AUahi
Uv	MATA	GAKO	FULU 'I MANU	AFI
Cognate groups:	<u>a.c.</u> <u>except</u> Tu	Ea Ma Ha Mi Ta / To Ka Uv / Mq / Ra / Sa / Tu	<u>a.c.</u>	<u>a.c.</u>

Lang.	Items #			
	29. Fish	30. To fly	31. Foot	32. To give
Ea	IKA	RERE	VA'E	VA'AI
Ha	I'A	LELE	WAWAE	HA'AWI
Ka	IKA	MĀGI	WAE	KOWATU
Ma	IKA	RERE	VAVAE	'O MAI
Mi	IKA	TOPA	WAEWAE	HO MAI
Mq	IKA	ONA	VAEVAE	TU'U
Ra	IKA	RERE	VAEVAE	'OU MAI
Sa	I'A	LELE	VAE	'AU MAI
Ta	I'A	RERE	AVAE	HORO'A
To	IKA	PUNA	VA'E	AGI
Tu	PARU	PIREHI	VAEVAE	HOROGA
Uv	IKA	LELE	VA'E	'AU MAI
Cognate groups:	<u>a.c.</u> <u>except</u> Tu	Ea Ka Ha / Ma Mi Ra / Sa Mq Ta / Uv To / Tu	<u>a.c.</u>	Ma Ta Sa Ea Mi Tu Uv / Ra / / Ka / Mq / To

Lang.	Items #			
	33. Full	34. Good	35. Laugh	36. Hair
Ea	'I	RIVARIVA	KATA	HURUHURU PUOKO
Ha	PIHA	MAIKA'I	'AKA	LAUHO
Ka	HONU	HUMARIA	KATAKAT	GAHURU
Ma	PI	POROTU	KATA	O'O
Mi	KI	PAI	KATA	MAKAWE
Mq	PI	MEITA'I	'ATA	OUHO
Ra	KI	MEITAKI	KATA	RAURU
Sa	TUMU	LELEI	'ATA	LAUULU
Ta	'I	MAITA'I	'ATA	RAURU
To	FONU	LELEI	KATA	FULUFULU 'I 'ULU
Tu	KI	MAITAKI	KATA	HURUHURU PEPENU
Uv	FONU	LELEI	KATA	FULU 'I 'ULU
Cognate groups:	Ea Ha Ka Sa Mi Ma To Ra Mq Uv Ta Tu	Ha Sa Ea Mq To / Ra Uv Ka Ta / Tu Ma / Mi	<u>a.c.</u>	Ea Ha Ra Mi Ka Ma Sa To Mq Ta Tu Uv

Lang.	Item #	37.	38.	39.	40.
		Hand	Head	Hear	Heart
Ea	RIMA		PUOKO	HAKA ROGO	MAHATU
Ha	LIMA		PO'O	LOHE	PU'UWAI
Ka	RIMA		RIPOKO	ROGO	MANAWA
Ma	RIMA		UPOKO	ROGO	'OUPO
Mi	RIGARIGA		MĀHUGA	ROGO	MANAWA
Mq	'I'IMA		UPOKO	HAKA'ONO	HOUPU
Ra	RIMA		UPOKO	'AKAROGO	PUKU'ATU
Sa	LIMA		ULU	FA'ALOGO	FATU
Ta	RIMA		UPO'O	FA'ARO'O	MAFATU
To	NIMA		'ULU	FANOGO	MAFU
Tu	RIMA		PEPENU	FAKARARE	MAFATU
Uv	NIMA		'ULU	FAKALOGO	MAFU
Cognate groups:	<u>a.c.</u>	Ea Sa Mi Ha To / Ka Uv Tu Ma Mq Ra Ta		<u>a.c.</u> <u>except</u> Ha / Tu	Ea Ma Ka Ha To Ra Mq Mi Ra Uv Sa Ta Tu

Lang.	Items #	41.	42.	43.	44.
		Wing	I	Kill	Know, see
Ea	KĀRĀ		KOAU	TIGA'I	'ITE
Ha	'EHEU		'OWAU	PEPEHI	'IKE
Ka	PAKAU		AU	TĀRIKI	IRO
Ma	PERERAU		KOAU	TINAI	TU'UGA
Mi	PARIRAU		AHAU	PATU	MOHIO
Mq	PEKEHEU		'OAU	KUKUMI	'ITE
Ra	PERERAU		KOAU	TA	KITE
Sa	'APA'AU		'OA'U	FASI	ILOA
Ta	PERERAU		VAU	TAPARAHI	'ITE
To	KAPAKAU		KOAU	TAMATE'I	'ILO
Tu	PERERAU		VAU	TAPARAHI	KITE
Uv	PAKAKAU		KOAU	FAKAPOGI	ILO'I
Cognate groups:	Ma Ka Ha Ea	<u>a.c.</u>		Ea Ta Ha Ra Ma Tu / / Ka Sa / / Mi To / / Mq Uv	Ea Ka Ma Ha Sa / Mq To Mi Ra Uv Ta Tu

Lang.	Items #			
	45. Knee	46. Leaf	47. To float	48. Liver
Ea	TURI VA'E	RAUPĀ	RAGARAGA	ATE
Ha	KULI	LAU	LANA	AKE
Ka	TURI	LAU	MĀNU	ATE
Ma	TURI	RAU	PĀE	ATE
Mi	TURI	RAU	MĀNU	ATE
Mq	MU'Ō	'AU	'ANA	ATE
Ra	TURI	RAU RĀKAU	PAINU	ATE
Sa	TULIVAE	LAU LA'AU	OPEOPEA	ATE
Ta	TURI	RAU'ERE	PAINU	UPA'A
To	TUI	LA'I 'AKAU	TĒTE	'ATE
Tu	TURI VAEVAE	RAU RĀKAU	TORIRE	PAPAHIA
Uv	TULI	LAU	MA'ANU	ATE
Cognate groups:	<u>a.c.</u> <u>except</u> Ma	<u>a.c.</u>	Ea Ka Ra Ma Ha Mi Ta / Mq Uv / Sa / To / Tu	<u>a.c.</u> <u>except</u> Ta / Tu

Lang.	Items #			
	49. Long	50. Louse	51. Child	52. Straight
Ea	ROAROA	KUTU	POKI	TĪTIKA
Ha	LOA	'UKU	KEIKI	POLOLEI
Ka	RORO	KUTU	SAMA	HŪTONU
Ma	ROA	KUTU	TEITI	TIKA
Mi	ROA	KUTU	TAMAITI	TOTIKA
Mq	KOA	'UTU	TAMA	TOITOI
Ra	ROA	KUTU	TAMARIKI	TIKA
Sa	'UMI	'UTU	TAMAITI	SA'O
Ta	ROA	'UTU	TAMARI'I	'AFARO
To	LOLOA	KUTU	TAMA	TOTONU
Tu	ROA	GUTU	TAMARIKI	PATITIKA
Uv	LOA	KUTU	TAMASI'I	TOTONU
Cognate	<u>a.c.</u> <u>except</u> Sa	<u>a.c.</u>	Ka Ha Ea Mi Ma Mq Ra Sa Ta To Tu Uv	Ea Ka Ha Ma To / Mi Uv Mq Ra / Tu Sa / Ta

Lang.	Items #	53. Meat	54. Moon	55. Mountain	56. Mouth
Ea		KIKO	MAHINA	MA'UGA	HAHA
Ha		'I'O	MAHINA	KUAHIWI	WAHA
Ka		KONĒIKA	MARAM	KONTU	GUTU
Ma		KIKO	MARAMA	MAGA	'A'A
Mi		KIKO	MARAMA	MAUGA	WAHA
Mq	(INA'I)		MAHINA	TUAIVI	FAPA
Ra		KIKO	MARAMA	MAUGA	VA'A
Sa	(FASIPOVI)		MASINA	MAUGA	GUTU
Ta		'I'O	'AVA'E	MOU'A	VAHA
To		KAKANO	MAHINA	MO'UGA	GUTU
Tu		KOEA	KAVAKE	KONAO TOREU	GUTU
Uv		KAKANO	MAHINA	MO'UGA	GUTU
Cognate groups:	Ea To Ka Ha Uv / Ma Tu Mi Ra Ta	Ea Ka Ta Ha Ma Tu Mq Mi Sa Ra To Uv	Ea Ha Ka Ma Mq / Mi Tu Ra Sa Ta To Uv	Ea Ka Ha Sa Ma To Mi Tu Mq Uv Ra Ta	

Lang	Items #	57. Name	58. Neck	59. New	60. Night
Ea		IGOA	TUKIGAO	'API	PO
Ha		INOA	'A'I	HOU	PO
Ka		IGO	UWA	HOU	PO
Ma		IGOA	KAKI	(OU	PO
Mi		IGOA	KAKI	HOU	PO
Mq		INOA	KAKI	HOU	PO
Ra		IGOA	KAKI	'OU	PO
Sa		IGOA	UA	FOU	PO
Ta		I'OA	'A'I	'API	PO
To		HIGOA	KIA	FO'OU	PO'ULI
Tu		IGOA	KAKI	KOREREKA	RUKI
Uv		HIGOA	TU'AKIA	FO'OU	PO'ULI
Cognate groups:	<u>a.c.</u>	Ha Ka To Ea Ma Sa Uv Mi Mq Ra Ta Tu	Ha Ea Tu Ka Ta Ma Mi Mq Ra Sa To Uv	<u>a.c.</u>  <u>except</u> Tu	

Lang.	Items #			
	61. Nose	62. Not	63. One	64. Person
Ea	IHU	'INA	ETAHI	TAGATA
Ha	IHU	'OLE	KAHI	KANAKA
Ka	UHI	HAKARE	TAHI	TAGATA
Ma	I'U	KORE	ETAHI	TAGATA
Mi	IHU	KAHORE	KOTAHI	TAGATA
Mq	IHU	'A'O'E	ETAHI	'ENATA
Ra	PUTAGIU	KARE	TA'I	TAGATA
Sa	ISU	KEAI	TASI	TAGATA
Ta	IHU	'AITA	HO'E	TA'ATA
To	IHU	'IKAI	TAHA	TAMA
Tu	IHU	KAORE	ATAHI	TAGATA
Uv	IHU	KAILOA	TAHI	HAHA'I
Cognate	<u>a.c.</u> <u>except</u> Ra	Ha To Ea Ka Uv / Ma Sa Mi / Mq Ta Ra Tu	<u>a.c.</u> <u>except</u> Ta	<u>a.c.</u> <u>except</u> To / Uv

Lang.	Items #			
	65. Rain	66. Red	67. Road	68. Root
Ea	UA	MEAMEA	ARA	AKA
Ha	UA	'ULA	ALA	A'A
Ka	UA	ME	ARA	AKA
Ma	UA	KURA	ARA	AKA
Mi	UWA	PERO	HUARAHI	WERI
Mq	UA	PUKIKI	VA'ANUI	AKA
Ra	UA	MURAMURA	MATARA	AKA
Sa	TIMU	MUMU	AUALA	A'A
Ta	UA	(UTE(UTE	E'A	A'A
To	'UHA	KULOKULA	HALA	AKA
Tu	TOITI	KURAKURA	POROUMU	AKA
Uv	UA	KULA	ALA	AKA
Cognate groups:	<u>a.c.</u> <u>except</u> Sa / Tu	Ha Ea Mi Ma Ka / To Mq Tu / Uv Ra / Sa / Ta	Ea Mi Ha / Ka Ta Ma / Sa Tu To / Uv Ra / Mq	<u>a.c.</u> <u>except</u> Mi



Lang.	Items #					70.	71.
	69.					Sand	To say
	Round						
Ea	TAKATAKA				ONE		VANAGA
Ha	POEPOE				ONE		'OLELO
Ka	PUGUPUGU				KEREKERE	KENE	HEREKAI
Ma	POKIRIKIRI				ONE		TAKAO
Mi	POROTAKA				ONEPŪ		KÖRERO
Mq	KAPO'IPO'I				ONE		TEKAO
Ra	PUNUPUNU				ONE		TUATUA
Sa	LAPOTOPOTO				ONENE		TAUTALA
Ta	MENEMENE				ONE		PARAU
To	POPOTOPOTO				ONEONE		LEA
Tu	MENEMENE				GAERE		EREKO
Uv	TAKAFUAFUA				ONE		PALALAU
Cognate groups:	Ea Ka Sa Ta Ha				<u>a.c.</u>	<u>except</u>	Ha Ma Ta Ea Sa
	Mi Ra To Tu /					Ka	Mi Mq Uv / /
	Uv /					/	Ka To
						Tu	/ /
							Ra Tu

Lang	Items #				
	72.	73.	74.	75.	
	Live	Flower	Sit	Skin	
Ea	ORA	PUA	NOHO	KIRI	
Ha	OLA	PUA	NOHO	'ILI	
Ka	MOURI	AKAI	NOHO	KIRI	
Ma	ORA	PUA	NO'O	KIRI	
Mi	ORA	PUA	NOHO	KIRI	
Mq	POHO'E	PUA	KA'API'E	KI'I	
Ra	ORA	TIARE	NO'O	PAKIRI	
Sa	OLA	FUA LA'AU	NOFO	PA'U	
Ta	ORA	TIARE	PARAHI	'IRI	
To	MO'UI	MATA LA'I 'AKAU	TA'UTU	KILI	
Tu	KURAORA	TIARE	NOHO	GOREGORE	
Uv	MA'ULI	FISI'I 'AKAU	NOFO	KILI	
Cognate groups:	Ea Ka Mq	Ea Ra Ka	<u>a.c.</u>	<u>a.c.</u>	
	Ha To	Ha Ta /			
	Ma Uv	Ma Tu To	<u>except</u>	<u>except</u>	
	Mi	Mi /	Mq	Sa	
	Ra	Mq Uv	/	/	
	Sa	Sa	Ta	Tu	
	Ta		/		
	Tu		To		

Lang.	Items #			
	76.	77.	78.	79.
	Sleep	Small	Smoke	Stand
Ea	HA'URU	ITI'ITI	'AU	KA E'A KIRUGA
Ha	HIAMOE	'U'UKU	UAHI	KŪ
Ka	KĪ	URI	HUIAHI	TŪ
Ma	MOE	NINORE	KOUA'I	TŪ
Mi	MOE	ITI	PAOA	TŪ
Mq	HIAMOE	MOMO	AUAHI	TŪ
Ra	MOE	MEGITI	AUA'I	TŪ
Sa	MOE	LA ITITI	(AFI)	TŪ
Ta	TA'OTO	NA'INA'I	AUAUHI	TI'A
To	MOHE	SI'ISI'I	'AHU	TU'U
Tu	PIKO	KOREREKA	KĀHORA	TIKA IRUGA
Uv	MOE	SI'ISI'I	'AHU	TU'U
Cognate groups:	Ha Ea Ma / Mi Ka Mq / Ra Ta Sa / To Tu Uv	Ea To Ha Mq Mi Uv / / Ra Ka Ta Sa / / Ma Tu	Ea Mi Ha / Ma Tu Mq / Ra Ka Ta To Uv	Ha Ta Ea Ka Tu Ma Mi Mq Ra Sa To Uv

Lang	Items #			
	80.	81.	82.	83.
	Star	Stone	Sun	Swim
Ea	HETU'U	MAEA	RA'Ā	KAU
Ha	HOKŪ	POHAKU	LA	'AU
Ka	HETU	HATU	RĀ	KAU
Ma	'ETŪ	PO'ATU	RĀ	KAU
Mi	FETU	KOHATU	RĀ	KAU
Mq	FETU	KE'A	OUMATI	KAU
Ra	'ETŪ	TOKA	RĀ	AKU
Sa	FETŪ	MA'A	LA	'AJ'AU
Ta	FETI'A	OFA'I	MAHANA	'AU
To	FETU'U	MAKA	LA'A	KAKAU
Tu	FETIKA	KONAO	HANA	TORAHĪ
Uv	FETU'U	MAKA	LA'A	KAUGA
Cognate	<u>a.c.</u> <u>except</u> Ta Tu	Ha Sa Ea Ka To / Ma Uv Mq Mi / Ra / Ta / Tu	<u>a.c.</u> <u>except</u> Ta Mq Tu	<u>a.c.</u> <u>except</u> Tu

Lang.	Items #				
	84 Tail	85 That	86 This	87 You	88 Tongue
Ea	HIKU	TERA	TEIE	KOE	ARERO
Ha	HUELO	KELA	KEIA	'OE	ALELO
Ka	HUKU	TERA	TENEI	KOE	HORORE
Ma	'IKU	ARA	NEI	KOE	ERERO
Mi	FIORE	TERA	TENEI	KOE	ARERO
Mq	VE'O	TE'A	TENEI	'OE	E'E'O
Ra	'IKU	TERA	TEIA	KOE	ARERO
Sa	SI'USI'U	LENA	LENEI	('OIA)	LAULAUFAIVA
Ta	'AERO	TERA	TEIE	'OE	ARERO
To	HIKU	KOE	KO'ENI	KOKOE	'ALELO
Tu	MAHIGA	TERA	TEIE	KOE	ARERO
Uv	HIKU	AENA	AENI	KOKOE	ALELO

Cognate Groups:	Ea Ha Mi		Ea Ma		Ea Ka To			<u>a.c.</u>	<u>a.c.</u>
		Ka	Mq /	Ha /		Ha	Ma /		<u>except</u>
	Ma	Ta Tu	Ka To		Ra	Mi Uv		Ka	
	Ra		Mi /		Ta	Mq		/	
	Sa		Mq Uv		Tu	Sa		Sa	
	To		Ra						
	Uv		Sa						
			Ta						
			Tu						

Lang.	Items #			
	89 Tooth	90 Tree	91 Two	92 Spit
Ea	NIHO	TUMU MIRO	RUA	'A'ANU
Ha	NIHO	KUMU	LUA	KUHA
Ka	NIHA	RAKAU	RUA	PUI
Ma	NI'O	TUMU RAKAU	RUA	TUTU'A
Mi	NIHO	RAKAU	KARUA	TUFA
Mq	NIHO	TUMU	'UA	TUHA
Ra	NI'O	TUMU RAKAU	RUA	TUTU'A
Sa	NIFO	LA'AU	LUA	FEANU
Ta	NIHO	TUMU RA'AU	PITI	TUTUHA
To	NIFO	'AKAU	UA	'A'ANU
Tu	NIHO	TUREI	PITI	TUTUHA
Uv	NIFO	FU'U 'AKAU	LUA	'A'ANU

Cognate Groups:	<u>a.c.</u>	Ea Ka Tu			<u>a.c.</u>	Ha Ea Ka		
			Ha	Mi		<u>except</u>	Ma	Sa
		Ma	Sa		Ta	Mi	To	
		Mq	To		Tu	Mq	Uv	
		Ra	Uv			Ra		
		Ta				Ta		
						Tu		

Lang.	Items #			
	93 Warm	94 Water	95 W	96 What?
Ea	MAHANA	VAI	TATOU	EAHA
Ha	MAHANA	WAI	MAKOU	HEAHA
Ka	MAHANA	WAI	KITATOU	MATIAHA
Ma	MA'ANA	VAI	TATOU	EA'A
Mi	WERA	WAI	TATOU	HEAHA
Mq	VE'AVE'A	VAI	TATOU	EAHA
Ra	MA'ANA'ANA	VAI	TATOU	EA'A
Sa	MAFANAFANA	VAI	TATOU	OLEA
Ta	MAHANAHANA	PAPE	TATOU	EAHA
To	MAFANA	VAI	TAUTOLU	KOEHA
Tu	VERAVERA	KOMO	TATEU	EAHA
Uv	MAFANA	VAI	TATOU	KOTEA

Cognate Groups:	<u>a.c.</u> except	<u>a.c.</u> except	<u>a.c.</u>	Ea	Sa
	Mi	Ta		Ha	To
	Mq	/		Ka	Uv
	Tu	Tu		Ma	
				Mi	
				Mq	
				Ra	
				Ta	
				Tu	

Lang.	Items #			
	97 White	98 Who	99 Woman	100 Yellow
Ea	TEATEA	KOAI	VI'E	TOUA MAMARI
Ha	KEA	'OWAI	WAHINE	MELEMELE
Ka	KENE	KOWAI	AHINA	ROUPUKA
Ma	TEA	KOAI	'A'INE	REGAREGA
Mi	MA	KOWAI	WAHINE	KOFAI(?)
Mq	MA'ITA	'OAI	VEHINE	KU'UHUA
Ra	TEATEA	KOAI	VA'INE	REGAREGA
Sa	PA'EPA'E	'OAI	FAFINE	SAMASAMA
Ta	'UO'UO	'OVAI	VAHINE	RE'ARE'A
To	HINEHINA	KOHAI	FEFINE	MELOMELO
Tu	KUOKUO	KOAI	VAHINE	RE'ARE'A
Uv	HINA	KOAI	FAFINE	LEGALEGA

Cognate Groups:	Ea Mi Ta To Ka	<u>a.c.</u>	<u>a.c.</u> except	Ma Ha Ea Mq
	Ha Mq Tu Uv /		Ea	Ra To / /
	Ma			Ta Ka Sa
	Pa			Tu /
				Uv Mi

APPENDIX C  
SENTENCE TEST TALLY SHEETS

This appendix consists of tally sheets based on the transcribed translations of the informants when listening to the recorded test material. The test items are arranged at the top of each page and the performance is recorded below and opposite the symbol for the informant or informant group. The symbol X represents a correct response to the test items. Incorrect responses or no responses are not indicated here.

E GUTU NUINUI TEIE KOPE.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

X

X

Ma. 2 :

X

X

Ma. 3 :

X

X

Mq. 1 :

Mq. 2 :

X

X

Ra. 1 :

Ra. 2 :

X

Ra. 3 :

X

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

X

Ta. 8 :

X

X

To. 1 :

To. 2 :

X

Tu. 1 :

Tu. 4 :

X

KOPE VA'E PAPA KU T I TAU MO TE HUTI HAKAKE'OKE'O.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 : X

---

Tu. 1 :Tu. 4 :

---

ME'E ROROA TE ROURU O TETAHI GA VI'E, TE

Ha. 1 :	X			
Ha. 2 :	X		X	
Ha. 5 :	X	X	X	
<hr/>				
Ma. 2 :	X	X	X	X
Ma. 3 :	X	X	X	
<hr/>				
Mq. 1 :				
Mq. 2 :	X	X		
<hr/>				
Ra. 1 :				
Ra. 2 :	X	X	X	X
Ra. 3 :	X	X	X	
<hr/>				
Sa. 1 :	X		X	
Sa. 2 :				
<hr/>				
Ta. 6 :	X	X	X	
Ta. 8 :	X	X		
<hr/>				
To. 1 :			X	
To. 2 :	X	X	X	X
<hr/>				
Tu. 1 :	X	X		
Tu. 4 :	X	X		
<hr/>				



RAHI RA'A ME'E POPOTO.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 : X

TE GA POKI 'INA HE'URU I TE KIRIVA'E.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

ME'E TAU TE MATA O TE UKA ERA.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X

Ma. 3 :

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X

Ta. 8 :

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 :

ME'E ROA TO GAO O TE KOPE ERA.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

Sa. 1 :

Sa. 2 :

Ta. 6 : X X

Ta. 8 : X

To. 1 : X

To. 2 : X

Tu. 1 :

Tu. 4 :

TE RAHI RA'A O TE MAU TAGATA HE'E TITIKA

Ha. 1 :			
Ha. 2 :		X	
Ha. 5 :		X	
<hr/>			
Ma. 2 :	X	X	X
Ma. 3 :		X	X
<hr/>			
Mq. 1 :			
Mq. 2 :	X	X	X
<hr/>			
Ra. 1 :			
Ra. 2 :	X	X	X
Ra. 3 :	X	X	
<hr/>			
Sa. 1 :		X	
Sa. 2 :		X	
<hr/>			
Ta. 6 :	X	X	X
Ta. 8 :	X	X	X
<hr/>			
To. 1 :			
To. 2 :		X	
<hr/>			
Tu. 1 :	X	X	X
Tu. 4 :	X	X	
<hr/>			

TO RĀTOU TU'Ā.

Ha. 1 :

Ha. 2 :

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 :

ME'E PORIA HO'I TE HAKARI O TETAHI MAU TAGATA,

Ha. 1 :		X	X
Ha. 2 :		X	X
Ha. 5 :		X	X
<hr/>			
Ma. 2 :	X	X	X
Ma. 3 :	X	X	X
<hr/>			
Mq. 1 :			
Mq. 2 :	X	X	X
<hr/>			
Ra. 1 :			
Ra. 2 :	X	X	X
Ra. 3 :		X	X
<hr/>			
Sa. 1 :		X	X
Sa. 2 :			X
<hr/>			
Ta. 6 :	X	X	X
Ta. 8 :	X	X	X
<hr/>			
To. 1 :			
To. 2 :			X
<hr/>			
Tu. 1 :	X	X	X
Tu. 4 :	X	X	X
<hr/>			

E ME'E PAPAKU HO'I TETAHI MAU NU'U.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

---

Ma. 2 :

X

Ma. 3 :

X

X

---

Mq. 1 :

Mq. 2 :

X

---

Ra. 1 :

Ra. 2 :

X

X

Ra. 3 :

X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

X

To. 2 :

X

---

Tu. 1 :

Tu. 4 :

---



TE VIRI NEI TE NINO O TETANI O TE TAGATA RU'AU.

Ha. 1 :	X				
Ha. 2 :	X	X		X	
Ha. 5 :	X	X		X	
Ma. 2 :	X	X		X	
Ma. 3 :	X	X		X	X
Mq. 1 :					
Mq. 2 :	X	X		X	X
Ra. 1 :					
Ra. 2 :	X	X		X	X
Ra. 3 :	X			X	X
Sa. 1 :	X			X	
Sa. 2 :				X	
Ta. 6 :	X	X		X	X
Ta. 8 :	X	X		X	X
To. 1 :					
To. 2 :				X	
Tu. 1 :	X	X		X	X
Tu. 4 :	X	X		X	X

ME'E HURU MAUI I I A. O TE ME'E KAI RANI ROA

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

Ma. 2 : X X X X

Ma. 3 : X X X X

Mq. 1 :

Mq. 2 : X X X X

Ra. 1 :

Ra. 2 : X X

Ra. 3 : X X

Sa. 1 :

Sa. 2 : X

Ta. 6 : X X X X

Ta. 8 : X X

To. 1 :

To. 2 : X X

Tu. 1 : X X X X

Tu. 4 : X X X X

'OIA.

Ha. 1 :

Ha. 2 :

Ha. 5 : X

---

Ma. 2 : X

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 : X

Ta. 8 :

---

To. 1 :

To. 2 : X

---

Tu. 1 : XTu. 4 :

---

3 'ITE HI TE PJA I TE KO A ROAROA.

Ha. 1 : X X

Ha. 2 : X X

Ha. 5 : X X

---

Ma. 2 : X X X X

Ma. 3 : X

---

Mq. 1 :

Mq. 2 : X X

---

Ra. 1 :

Ra. 2 : X X

Ra. 3 : X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 : X

Ta. 8 : X

---

To. 1 :

To. 2 :

---

Tu. 1 : X

Tu. 4 : X X

---

'EHIA HORA E TU'U 'OE I KAMPO.

Ha. 1 :	X	X	
Ha. 2 :	X	X	
Ha. 5 :	X	X	X

---

Ma. 2 :	X	X	
Ma. 3 :	X	X	X

---

Mq. 1 :			
Mq. 2 :	X	X	X

---

Ra. 1 :			
Ra. 2 :			
Ra. 3 :	X	X	X

---

Sa. 1 :			
Sa. 2 :			X

---

Ta. 6 :	X	X	X
Ta. 8 :	X	X	

---

To. 1 :			
To. 2 :			

---

Tu. 1 :	X	X	X
Tu. 4 :	X	X	

---

K' U'I NA KISA. HE AUA TA'A ME'E MOTAKEA?

Ha. 1 :	X		X	X
---------	---	--	---	---

Ha. 2 :	X			
---------	---	--	--	--

Ha. 5 :	X		X	
---------	---	--	---	--

---

Ma. 2 :	X		X	X
---------	---	--	---	---

Ma. 3 :	X	X		X
---------	---	---	--	---

---

Mq. 1 :				
---------	--	--	--	--

Mq. 2 :				
---------	--	--	--	--

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :				
---------	--	--	--	--

Ra. 3 :	X	X		
---------	---	---	--	--

---

Sa. 1 :				
---------	--	--	--	--

Sa. 2 :	X			
---------	---	--	--	--

---

Ta. 6 :				
---------	--	--	--	--

Ta. 8 :				
---------	--	--	--	--

---

To. 1 :				
---------	--	--	--	--

To. 2 :				
---------	--	--	--	--

---

Tu. 1 :	X			
---------	---	--	--	--

Tu. 4 :				
---------	--	--	--	--

---

KOHAGA ANA AU MO NOHO MO KAI KO ROHIROI ANA AU.

Ha. 1 :		X		X	
Ha. 2 :	X	X			X
Ha. 5 :		X	X		X
<hr/>					
Ma. 2 :				X	
Ma. 3 :				X	
<hr/>					
Mq. 1 :					
Mq. 2 :		X	X	X	X
<hr/>					
Ra. 1 :					
Ra. 2 :					
Ra. 3 :				X	X
<hr/>					
Sa. 1 :					
Sa. 2 :					
<hr/>					
Ta. 6 :				X	
Ta. 8 :					
<hr/>					
To. 1 :					
To. 2 :					
<hr/>					
Tu. 1 :					
Tu. 4 :				X	
<hr/>					

KA NOHO ITIITI KOE.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X X

Mq. 1 :

Mq. 2 : X X

Ra. 1 :

Ra. 2 :

Ra. 3 : X X

Sa. 1 : X X

Sa. 2 : X

Ta. 6 : X X

Ta. 8 : X X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X



TE MANA'O NEI TE TAGATA E ANA I ME'E, MANA'O

Ha. 1 :	X	X		X
---------	---	---	--	---

Ha. 2 :	X	X		
---------	---	---	--	--

Ha. 5 :	X	X		
---------	---	---	--	--

---

Ma. 2 :	X	X		
---------	---	---	--	--

Ma. 3 :	X	X		
---------	---	---	--	--

---

Mq. 1 :				
---------	--	--	--	--

Mq. 2 :	X	X	X	X
---------	---	---	---	---

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :	X	X		
---------	---	---	--	--

Ra. 3 :	X	X		
---------	---	---	--	--

---

Sa. 1 :		X		
---------	--	---	--	--

Sa. 2 :		X		
---------	--	---	--	--

---

Ta. 6 :	X	X		
---------	---	---	--	--

Ta. 8 :	X	X		
---------	---	---	--	--

---

To. 1 :				
---------	--	--	--	--

To. 2 :		X		
---------	--	---	--	--

---

Tu. 1 :				
---------	--	--	--	--

Tu. 4 :	X			
---------	---	--	--	--

---

NEI RA AU 'INA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

'INA E KOKORI TE ME'E ERA.

Ha. 1 : X

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

MAKAROHU ANA AU ME'E KAHI TE HORA.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X X

Ma. 3 : X X X X

Mq. 1 :

Mq. 2 : X X X X

Ra. 1 :

Ra. 2 : X X X X

Ra. 3 : X X X X

Sa. 1 : X

Sa. 2 :

Ta. 6 : X X

Ta. 8 : X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X X X

KU MANA'U RIVARIVA ANA AU I TE ME'E EA,

Ha. 1 : X

Ha. 2 : X

X

Ha. 5 :

Ma. 2 : X

X

X

Ma. 3 : X

X

X

Mq. 1 :

Mq. 2 : X

X

Ra. 1 :

Ra. 2 : X

X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

X

Tu. 1 :

Tu. 4 :

ME'E RIVARIVA BOA.

Ha. 1 :

Ha. 2 : X

Ha. 5 :

Ma. 2 : X

Ma. 3 : X X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

KU KI A AU KĪAIA.

Ha. 1 :                   X

Ha. 2 :                   X   X

Ha. 5 :

---

Ma. 2 :                   X   X

Ma. 3 :                   X

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :                   X   X

---

Sa. 1 :

Sa. 2 :                   X   X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :                   X

---

Tu. 1 :

Tu. 4 :

---

KI MAI 'A PETERO E OHO APO.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 : X X

Ma. 3 : X X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 :

Sa. 2 : X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :



ME'E RANI TE TAGATA I MANA'O PEIHA.

Ha. 1 :		X	X	X
Ha. 2 :		X	X	X
Ha. 5 :		X	X	X

---

Ma. 2 :	X	X	X	X
Ma. 3 :	X	X	X	X

---

Mq. 1 :				
Mq. 2 :	X	X	X	

---

Ra. 1 :				
Ra. 2 :	X	X	X	X
Ra. 3 :	X	X	X	X

---

Sa. 1 :		X		
Sa. 2 :		X		

---

Ta. 6 :	X	X	X	X
Ta. 8 :	X	X	X	X

---

To. 1 :				
To. 2 :		X		

---

Tu. 1 :				
Tu. 4 :	X	X		

---

KU ARA ANA AU I TE PO'A KU E'A KI HAUO.

Ha. 1 : X

Ha. 2 : X X X

Ha. 5 : X

---

Ma. 2 :

Ma. 3 : X X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 : X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

HE 'OHANA NUI KO'U.

Ha. 1 :	X	X	
---------	---	---	--

Ha. 2 :	X	X	X
---------	---	---	---

Ha. 5 :	X	X	X
---------	---	---	---

---

Ma. 2 :		X	X
---------	--	---	---

Ma. 3 :			
---------	--	--	--

---

Mq. 1 :			
---------	--	--	--

Mq. 2 :		X	X
---------	--	---	---

---

Ra. 1 :			
---------	--	--	--

Ra. 2 :			
---------	--	--	--

Ra. 3 :			
---------	--	--	--

---

Sa. 1 :			
---------	--	--	--

Sa. 2 :			
---------	--	--	--

---

Ta. 6 :			
---------	--	--	--

Ta. 8 :		X	X
---------	--	---	---

---

To. 1 :			
---------	--	--	--

To. 2 :			
---------	--	--	--

---

Tu. 1 :			
---------	--	--	--

Tu. 4 :			
---------	--	--	--

---

'EHIA PO'E O KO KOU 'OILANA?

Ha. 1 : X X X

Ha. 2 : X X X X

Ha. 5 : X X X X

Ma. 2 : X

Ma. 3 :

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X X

Ra. 3 : X

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 : X

'EKOLU O'U KAIKUA'ANA A HE HO'OKANI KALAIWA.

Ha. 1 :	X		X		X	X
Ha. 2 :	X	X	X		X	X
Ha. 5 :	X	X	X		X	X

Ma. 2 : X

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X X X

Sa. 2 : X X

Ta. 6 : X X

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

HE 'EKOLU O'U MAU KAIKUNANE.

Ha. 1 :	X	X	X
---------	---	---	---

Ha. 2 :	X		X
---------	---	--	---

Ha. 5 :	X	X	X
---------	---	---	---

---

Ma. 2 :		X	X
---------	--	---	---

Ma. 3 :			
---------	--	--	--

---

Mq. 1 :			
---------	--	--	--

Mq. 2 :			
---------	--	--	--

---

Ra. 1 :			
---------	--	--	--

Ra. 2 :			
---------	--	--	--

Ra. 3 :	X		
---------	---	--	--

---

Sa. 1 :	X	X	X
---------	---	---	---

Sa. 2 :	X		X
---------	---	--	---

---

Ta. 6 :			
---------	--	--	--

Ta. 8 :			
---------	--	--	--

---

To. 1 :			
---------	--	--	--

To. 2 :			
---------	--	--	--

---

Tu. 1 :	X		
---------	---	--	--

Tu. 4 :			
---------	--	--	--

---

'A'OLE E OLA NEI KO'U MAU KUPANA.

Ha. 1 :	X	X	X	X
Ha. 2 :	X	X	X	X
Ha. 5 :	X	X	X	X

---

Ma. 2 :	X	X	X	X
Ma. 3 :	X	X	X	X

---

Mq. 1 :				
Mq. 2 :	X	X	X	X

---

Ra. 1 :				
Ra. 2 :	X	X	X	X
Ra. 3 :	X	X	X	X

---

Sa. 1 :		X		
Sa. 2 :		X		

---

Ta. 6 :	X	X	X	X
Ta. 8 :	X	X	X	X

---

To. 1 :				
To. 2 :				

---

Tu. 1 :	X	X	X	X
Tu. 4 :	X	X	X	X

---

UA NOHO ANEI 'OE ME KOU MAU MĀKUA I KELĀ

Ha. 1 :	X	X	X	X	X
Ha. 2 :	X	X	X	X	X
Ha. 5 :	X	X	X	X	X
Ma. 2 :	X	X		X	X
Ma. 3 :	X	X	X		X
Mq. 1 :					
Mq. 2 :	X	X			X
Ra. 1 :					
Ra. 2 :	X	X			X
Ra. 3 :	X	X	X	X	X
Sa. 1 :	X	X	X	X	
Sa. 2 :	X	X	X	X	
Ta. 6 :	X	X			X
Ta. 8 :	X	X			X
To. 1 :			X	X	
To. 2 :	X	X			
Tu. 1 :	X	X	X	X	X
Tu. 4 :	X	X	X	X	X



MAKAHIKI AKU NEI?

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 : X

'O KU'U HOALONA KA I NOHO, AKĀ I KEIA MARAHINI

Ha. 1 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ha. 2 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ha. 5 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

---

Ma. 2 :			X			X
---------	--	--	---	--	--	---

Ma. 3 :					X	X
---------	--	--	--	--	---	---

---

Mq. 1 :						
---------	--	--	--	--	--	--

Mq. 2 :	X	X	X			
---------	---	---	---	--	--	--

---

Ra. 1 :						
---------	--	--	--	--	--	--

Ra. 2 :					X	X
---------	--	--	--	--	---	---

Ra. 3 :					X	X
---------	--	--	--	--	---	---

---

Sa. 1 :						
---------	--	--	--	--	--	--

Sa. 2 :						
---------	--	--	--	--	--	--

---

Ta. 6 :	X	X	X		X	X
---------	---	---	---	--	---	---

Ta. 8 :			X			X
---------	--	--	---	--	--	---

---

To. 1 :						
---------	--	--	--	--	--	--

To. 2 :						
---------	--	--	--	--	--	--

---

Tu. 1 :			X			
---------	--	--	---	--	--	--

Tu. 4 :					X	X
---------	--	--	--	--	---	---

---

'O KU'U HOALONA KA I NOHO, AKĀ I KEIA MAKAHIKI

Ha. 1 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ha. 2 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ha. 5 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ma. 2 :			X			X
---------	--	--	---	--	--	---

Ma. 3 :					X	X
---------	--	--	--	--	---	---

Mq. 1 :						
---------	--	--	--	--	--	--

Mq. 2 :	X	X	X			
---------	---	---	---	--	--	--

Ra. 1 :						
---------	--	--	--	--	--	--

Ra. 2 :					X	X
---------	--	--	--	--	---	---

Ra. 3 :					X	X
---------	--	--	--	--	---	---

Sa. 1 :						
---------	--	--	--	--	--	--

Sa. 2 :						
---------	--	--	--	--	--	--

Ta. 6 :	X	X	X		X	X
---------	---	---	---	--	---	---

Ta. 8 :			X			X
---------	--	--	---	--	--	---

To. 1 :						
---------	--	--	--	--	--	--

To. 2 :						
---------	--	--	--	--	--	--

Tu. 1 :			X			
---------	--	--	---	--	--	--

Tu. 4 :					X	X
---------	--	--	--	--	---	---

A'E E MALE ANA IA A NOHO ME KANA WAIINE.

Ha. 1 :	X	X	X	X	
Ha. 2 :	X	X	X	X	X
Ha. 5 :	X	X	X	X	X

---

Ma. 2 :					X
Ma. 3 :		X	X	X	X

---

Mq. 1 :					
Mq. 2 :		X	X	X	X

---

Ra. 1 :					
Ra. 2 :		X	X	X	X
Ra. 3 :			X	X	X

---

Sa. 1 :					X
Sa. 2 :		X			X

---

Ta. 6 :		X		X	X
Ta. 8 :				X	X

---

To. 1 :				X	
To. 2 :				X	

---

Tu. 1 :			X		X
Tu. 4 :			X	X	X

---

WAKEMAKE 'OLA I KA NUI O NA KEIKI.

Ha. 1 :	X	X	X	X
Ha. 2 :	X	X	X	X
Ha. 5 :	X	X	X	X

---

Ma. 2 :			X	X
Ma. 3 :		X	X	

---

Mq. 1 :				
Mq. 2 :	X	X	X	

---

Ra. 1 :				
Ra. 2 :		X		
Ra. 3 :		X		

---

Sa. 1 :		X		
Sa. 2 :		X		

---

Ta. 6 :		X		
Ta. 8 :			X	

---

To. 1 :				
To. 2 :				

---

Tu. 1 :		X		
Tu. 4 :				

---

MAKEMAKE 'OIA E HAU'OLI A E IKAIKA KĀNA

Ha. 1 :	X	X	X	X	X
---------	---	---	---	---	---

Ha. 2 :	X	X	X	X	X
---------	---	---	---	---	---

Ha. 5 :	X	X	X	X	X
---------	---	---	---	---	---

---

Ma. 2 :					
---------	--	--	--	--	--

Ma. 3 :					
---------	--	--	--	--	--

---

Mq. 1 :					
---------	--	--	--	--	--

Mq. 2 :	X	X			
---------	---	---	--	--	--

---

Ra. 1 :					
---------	--	--	--	--	--

Ra. 2 :		X			X
---------	--	---	--	--	---

Ra. 3 :		X			
---------	--	---	--	--	--

---

Sa. 1 :		X	X		
---------	--	---	---	--	--

Sa. 2 :		X			
---------	--	---	--	--	--

---

Ta. 6 :		X			X
---------	--	---	--	--	---

Ta. 8 :					
---------	--	--	--	--	--

---

To. 1 :					
---------	--	--	--	--	--

To. 2 :					
---------	--	--	--	--	--

---

Tu. 1 :		X			
---------	--	---	--	--	--

Tu. 4 :					
---------	--	--	--	--	--

---

MAU KEIKI.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 : X

Ma. 3 : X

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

MANA'O AU HE MEA MAIKA'I KA NUI O NA KĀNAKA

Ha. 1 :	X	X		X	X
---------	---	---	--	---	---

Ha. 2 :	X	X	X	X	X
---------	---	---	---	---	---

Ha. 5 :	X	X	X	X	X
---------	---	---	---	---	---

---

Ma. 2 :	X	X	X	X	X
---------	---	---	---	---	---

Ma. 3 :	X	X	X	X	
---------	---	---	---	---	--

---

Mq. 1 :					
---------	--	--	--	--	--

Mq. 2 :	X	X	X	X	X
---------	---	---	---	---	---

---

Ra. 1 :					
---------	--	--	--	--	--

Ra. 2 :	X	X	X		X
---------	---	---	---	--	---

Ra. 3 :	X	X	X		
---------	---	---	---	--	--

---

Sa. 1 :		X	X		
---------	--	---	---	--	--

Sa. 2 :		X			
---------	--	---	--	--	--

---

Ta. 6 :	X	X	X		
---------	---	---	---	--	--

Ta. 8 :	X	X	X	X	
---------	---	---	---	---	--

---

To. 1 :		X			
---------	--	---	--	--	--

To. 2 :		X			
---------	--	---	--	--	--

---

Tu. 1 :		X	X		
---------	--	---	---	--	--

Tu. 4 :	X	X	X	X	X
---------	---	---	---	---	---

---



KOKUA I KA HANA.

Ha. 1 :	X	X
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :



A ME NO'U MAKUAKANE.

Ha. 1 :	X	X
---------	---	---

Ha. 2 :	X	X
---------	---	---

Ha. 5 :	X	X
---------	---	---

---

Ma. 2 :	X	
---------	---	--

Ma. 3 :	X	X
---------	---	---

---

Mq. 1 :		
---------	--	--

Mq. 2 :	X	X
---------	---	---

---

Ra. 1 :		
---------	--	--

Ra. 2 :		
---------	--	--

Ra. 3 :	X	X
---------	---	---

---

Sa. 1 :		
---------	--	--

Sa. 2 :		
---------	--	--

---

Ta. 6 :	X	X
---------	---	---

Ta. 8 :	X	X
---------	---	---

---

To. 1 :		
---------	--	--

To. 2 :		
---------	--	--

---

Tu. 1 :	X	X
---------	---	---

Tu. 4 :	X	X
---------	---	---

---



I KO'U NUI 'ANA A'E HIKI IA'U KE HANA I NA

Ha. 1 :	X	X	X	X	X
---------	---	---	---	---	---

Ha. 2 :	X	X	X	X	X
---------	---	---	---	---	---

Ha. 5 :	X	X	X	X	X
---------	---	---	---	---	---

---

Ma. 2 :				X	
---------	--	--	--	---	--

Ma. 3 :					
---------	--	--	--	--	--

---

Mq. 1 :					
---------	--	--	--	--	--

Mq. 2 :				X	X
---------	--	--	--	---	---

---

Ra. 1 :					
---------	--	--	--	--	--

Ra. 2 :					
---------	--	--	--	--	--

Ra. 3 :					
---------	--	--	--	--	--

---

Sa. 1 :					
---------	--	--	--	--	--

Sa. 2 :				X	
---------	--	--	--	---	--

---

Ta. 6 :	X				
---------	---	--	--	--	--

Ta. 8 :					X
---------	--	--	--	--	---

---

To. 1 :					
---------	--	--	--	--	--

To. 2 :					
---------	--	--	--	--	--

---

Tu. 1 :	X			X	
---------	---	--	--	---	--

Tu. 4 :					
---------	--	--	--	--	--

---

HANA A NA WĀHINE 'O KA ULANA MOENA A ME KA

Ha. 1 : X X X X

Ha. 2 : X X X X

Ha. 5 : X X X X

---

Ma. 2 : X X

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 : X

Ta. 8 : X

---

To. 1 : X

To. 2 : X

---

Tu. 1 : X

Tu. 4 :

---

ИЮМЧИЖМУ.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

MAKEMAKE AU I KANE MAKAUKAU I KA MAHI'AI ME

Ha. 1 :	X	X	X		X
Ha. 2 :	X	X	X	X	X
Ha. 5 :	X	X	X	X	X

---

Ma. 2 :		X	X		
Ma. 3 :		X	X		

---

Mq. 1 :					
Mq. 2 :	X	X	X		

---

Ra. 1 :					
Ra. 2 :		X	X		
Ra. 3 :		X	X		

---

Sa. 1 :		X			
Sa. 2 :		X			

---

Ta. 6 :					
Ta. 8 :		X	X		

---

To. 1 :					
To. 2 :					

---

Tu. 1 :		X	X		
Tu. 4 :		X			

---



KA LAWAI'A

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

	<u>'OWAI</u>	ANA	<u>'OIA?</u>	<u>'OWAI</u>	LA?
Ha. 1 :	X		X	X	
Ha. 2 :	X		X	X	
Ha. 5 :	X			X	
<hr/>					
Ma. 2 :	X			X	
Ma. 3 :	X			X	
<hr/>					
Mq. 1 :					
Mq. 2 :	X		X	X	
<hr/>					
Ra. 1 :					
Ra. 2 :					
Ra. 3 :	X		X	X	
<hr/>					
Sa. 1 :			X		
Sa. 2 :			X	X	
<hr/>					
Ta. 6 :				X	
Ta. 8 :				X	
<hr/>					
To. 1 :					
To. 2 :			X		
<hr/>					
Tu. 1 :	X		X	X	
Tu. 4 :			X	X	
<hr/>					

I KE ANIANI, MAHOPE O KA PAU 'ANA O KA HANA,

Ha. 1 :		X		X		X
---------	--	---	--	---	--	---

Ha. 2 :	X	X		X		X
---------	---	---	--	---	--	---

Ha. 5 :	X					
---------	---	--	--	--	--	--

---

Ma. 2 :	X					
---------	---	--	--	--	--	--

Ma. 3 :	X					
---------	---	--	--	--	--	--

---

Mq. 1 :						
---------	--	--	--	--	--	--

Mq. 2 :	X					
---------	---	--	--	--	--	--

---

Ra. 1 :						
---------	--	--	--	--	--	--

Ra. 2 :	X					
---------	---	--	--	--	--	--

Ra. 3 :	X					
---------	---	--	--	--	--	--

---

Sa. 1 :						
---------	--	--	--	--	--	--

Sa. 2 :						
---------	--	--	--	--	--	--

---

Ta. 6 :	X					
---------	---	--	--	--	--	--

Ta. 8 :	X					
---------	---	--	--	--	--	--

---

To. 1 :						
---------	--	--	--	--	--	--

To. 2 :	X					
---------	---	--	--	--	--	--

---

Tu. 1 :	X					
---------	---	--	--	--	--	--

Tu. 4 :	X					
---------	---	--	--	--	--	--

---

HE MEA MAIKA'I E KŪKA'I KAMA'ILIO HE KO'U

Ha. 1 :	X	X	X
Ha. 2 :	X	X	X
Ha. 5 :	X	X	X

---

Ma. 2 :

Ma. 3 :	X
---------	---

---

Mq. 1 :

Mq. 2 :	X
---------	---

---

Ra. 1 :

Ra. 2 :	X
---------	---

Ra. 3 :	X
---------	---

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :	X
---------	---

Ta. 8 :	X
---------	---

---

To. 1 :

To. 2 :

---

Tu. 1 :	X
---------	---

Tu. 4 :

---

'OHANA.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : -

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

MELE MAI NA HOALOHA O MAKOU MAHOPE O KA 'AINA

Ha. 1 :			X	X		X
Ha. 2 :	-	X	X	X		X
Ha. 5 :	X	-	X	X		
<hr/>						
Ma. 2 :		X				
Ma. 3 :						
<hr/>						
Mq. 1 :						
Mq. 2 :						
<hr/>						
Ra. 1 :						
Ra. 2 :						
Ra. 3 :				X		
<hr/>						
Sa. 1 :				X		
Sa. 2 :				X		
<hr/>						
Ta. 6 :						
Ta. 8 :				X		
<hr/>						
To. 1 :						
To. 2 :						
<hr/>						
Tu. 1 :						
Tu. 4 :						
<hr/>						

ANIAHI KE MAHANA KA PO.

Ha. 1 :       X               X               X

Ha. 2 :       X               X               X

Ha. 5 :       X               X               X

Ma. 2 :       X                               X

Ma. 3 :                                       X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :                               X

Sa. 1 :                               X

Sa. 2 :                               X

Ta. 6 :       X

Ta. 8 :       X                               X

To. 1 :                               X

To. 2 :                               X

Tu. 1 :       X                               X

Tu. 4 :

MAIKA'I KO LAKOU LEO KE HO'OLOME AKU.

Ha. 1 :	X	X	X	X
---------	---	---	---	---

Ha. 2 :	X	X	X	X
---------	---	---	---	---

Ha. 5 :	X	X	X	X
---------	---	---	---	---

---

Ma. 2 :	X	X	X	
---------	---	---	---	--

Ma. 3 :	X		X	
---------	---	--	---	--

---

Mq. 1 :				
---------	--	--	--	--

Mq. 2 :	X	X	X	X
---------	---	---	---	---

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :	X			
---------	---	--	--	--

Ra. 3 :	X			
---------	---	--	--	--

---

Sa. 1 :		X	X	
---------	--	---	---	--

Sa. 2 :		X	X	
---------	--	---	---	--

---

Ta. 6 :	X	X	X	
---------	---	---	---	--

Ta. 8 :	X	X	X	
---------	---	---	---	--

---

To. 1 :				
---------	--	--	--	--

To. 2 :		X		
---------	--	---	--	--

---

Tu. 1 :	X			
---------	---	--	--	--

Tu. 4 :	X			
---------	---	--	--	--

---



I KE AO, I KA WĀ E PA'AHANA ANA NA KAKA

Ha. 1 :           X           X           X           X

Ha. 2 :           X           X           X           X

Ha. 5 :           X           X           X           X

---

Ma. 2 :           X                           X

Ma. 3 :           X

---

Mq. 1 :

Mq. 2 :           X                           X           X

---

Ra. 1 :

Ra. 2 :           X

Ra. 3 :           X

---

Sa. 1 :           X                           X

Sa. 2 :           X                           X

---

Ta. 6 :           X

Ta. 8 :           X

---

To. 1 :

To. 2 :   X

---

Tu. 1 :           X

Tu. 4 :           X                           X

---

IAKUA, PA'ANI NO NA KEIKI.

Ha. 1 : X X X

Ha. 2 : X X X

Ha. 5 : - X X

Ma. 2 :

Ma. 3 : X X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 : X

To. 2 :

Tu. 1 :

Tu. 4 :

HE HANA NO LĀKOU I NA MEA 'E A'E.

Ha. 1 :	X	X	X	X
Ha. 2 :	X	X	X	X
Ha. 5 :	X	X	X	X

---

Ma. 2 :	X	X	X
Ma. 3 :		X	

---

Mq. 1 :			
Mq. 2 :	X	X	

---

Ra. 1 :			
Ra. 2 :		X	
Ra. 3 :		X	

---

Sa. 1 :		X	X
Sa. 2 :		X	X

---

Ta. 6 :			
Ta. 8 :	X	X	X

---

To. 1 :			
To. 2 :		X	

---

Tu. 1 :		X	
Tu. 4 :		X	

---

KITĀTOU E ROGONO NIA RE(O) O SATAU MĀTUA.

Ha. 1 : X

Ha. 2 : X X

Ha. 5 : X

---

Ma. 2 : X X X

Ma. 3 : X X X X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

Sa. 1 : X X X X

Sa. 2 : X

---

Ta. 6 :

Ta. 8 : X X X

---

To. 1 : X X X

To. 2 : X X X

---

Tu. 1 : X

Tu. 4 : X X

---

MĒMĀ E KAHIKANI KITĀTOU PORO KI RO MOI E KĪ.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

---

Ma. 2 : X

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 :

Ta. 8 : X

---

To. 1 : X

To. 2 : X

---

Tu. 1 : X

Tu. 4 : X

SATAU MATAKOA KITĀTOU NE KĪ, MATARIA SATAU

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 :

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 : X

TUAHINA TANE MO SATAU TUAHINA AHINA KA TAERO

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

KI RUATA TAEAO.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---



SATAU MATAKOA NOKO RIKI, KITĀTOU TIKI NOHO

Ha. 1 :	X	X
---------	---	---

Ha. 2 :	X	
---------	---	--

Ha. 5 :	X	X
---------	---	---

---

Ma. 2 :	X	X
---------	---	---

Ma. 3 :	X	
---------	---	--

---

Mq. 1 :		
---------	--	--

Mq. 2 :	X	X
---------	---	---

---

Ra. 1 :		
---------	--	--

Ra. 2 :		X
---------	--	---

Ra. 3 :		
---------	--	--

---

Sa. 1 :	X	X
---------	---	---

Sa. 2 :		X
---------	--	---

---

Ta. 6 :	X	
---------	---	--

Ta. 8 :	X	X
---------	---	---

---

To. 1 :		
---------	--	--

To. 2 :	X	X
---------	---	---

---

Tu. 1 :	X	X
---------	---	---

Tu. 4 :	X	X
---------	---	---

---

I TAHA I TE PŌ.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 :

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X

Ta. 8 :

To. 1 : X

To. 2 :

Tu. 1 : X

Tu. 4 : X

TI MATAKOA MAKA PŌ, KITĀTOU E MATAKU KA HURA

Ha. 1 :	X	X		
Ha. 2 :		X		
Ha. 5 :		X		
<hr/>				
Ma. 2 :		X		
Ma. 3 :				
<hr/>				
Mq. 1 :				
Mq. 2 :				
<hr/>				
Ra. 1 :				
Ra. 2 :	X	X	X	X
Ra. 3 :				
<hr/>				
Sa. 1 :	X	X		
Sa. 2 :		X		
<hr/>				
Ta. 6 :				
Ta. 8 :				
<hr/>				
To. 1 :				
To. 2 :				
<hr/>				
Tu. 1 :				
Tu. 4 :				
<hr/>				

KI SATAU HARE.

Ha. 1 :

Ha. 2 :                   X

Ha. 5 :

---

Ma. 2 :                   X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

TOROMENEI KITĀTOU IAKARE MATAKU I TI PŌ.

Ha. 1 :	X			X
Ha. 2 :	X			X
Ha. 5 :				X
Ma. 2 :	X	X	X	X
Ma. 3 :		X	X	X
Mq. 1 :				
Mq. 2 :	X			X
Ra. 1 :				
Ra. 2 :				X
Ra. 3 :				
Sa. 1 :				X
Sa. 2 :	X			X
Ta. 6 :				X
Ta. 8 :	X		X	X
To. 1 :				X
To. 2 :				X
Tu. 1 :				X
Tu. 4 :				X

KOE E NOHO I HOGO HENUA TAMANA?

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 : X X X

Ma. 3 : X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 : X X

O MATOU MĀTUA RE NOHO I HOGO TOU HENUA?

Ha. 1 :		X		
---------	--	---	--	--

Ha. 2 :				X
---------	--	--	--	---

Ha. 5 :		X		X
---------	--	---	--	---

---

Ma. 2 :		X	X	X
---------	--	---	---	---

Ma. 3 :	X	X	X	X
---------	---	---	---	---

---

Mq. 1 :				
---------	--	--	--	--

Mq. 2 :	X	X	X	X
---------	---	---	---	---

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :	X		X	X
---------	---	--	---	---

Ra. 3 :				
---------	--	--	--	--

---

Sa. 1 :		X		
---------	--	---	--	--

Sa. 2 :		X		
---------	--	---	--	--

---

Ta. 6 :		X		X
---------	--	---	--	---

Ta. 8 :		X	X	X
---------	--	---	---	---

---

To. 1 :		X		
---------	--	---	--	--

To. 2 :		X	X	
---------	--	---	---	--

---

Tu. 1 :				X
---------	--	--	--	---

Tu. 4 :		X	X	X
---------	--	---	---	---

---

KOE HANI MOI MAKAHE KI TOKU HENUA?

Ha. 1 :

Ha. 2 :

Ha. 5 :           X

Ma. 2 :   X   X    X

Ma. 3 :           X   X    X

Mq. 1 :

Mq. 2 :   X    X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :   X        X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :   X

To. 2 :   X

Tu. 1 :   X   X    X

Tu. 4 :   X    X



TOKU IHOA E HIHAI ATU KITI KOE PORO KI MATA

Ha. 1 :

Ha. 2 :

Ha. 5 :

X

---

Ma. 2 : X X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

X

---

Ta. 6 : X X

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 : X

Tu. 4 :

---

KI TONA HARE.

Ha. 1 :

Ha. 2 : X

Ha. 5 :

---

Ma. 2 : X

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 : X

To. 2 :

---

Tu. 1 : XTu. 4 :  

---

TO MATAKOA MAKA HANI MOI KE KOE KA KI I ROTO

Ha. 1 : X

Ha. 2 :

Ha. 5 :

---

Ma. 2 : X

Ma. 3 : X X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 : X

---

Tu. 1 :

Tu. 4 :

---

SATAU HARE.

Ha. 1 :

Ha. 2 :           X

Ha. 5 :

Ma. 2 :           X

Ma. 3 :       X     X

Mq. 1 :

Mq. 2 :       X     X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

KITĀTOU HUWOKOTO E MIAMI IKORO .

Ha. 1 : X

Ha. 2 : X X

Ha. 5 : X

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X X

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 : X

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 : X

Tu. 1 : X

Tu. 4 :

TI HARE TĒRĀ RE TURI TI HARE TĒNEI.

Ha. 1 :

Ha. 2 :           X

Ha. 5 :           X                   X

---

Ma. 2 :       X    X                   X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :           X                   X

---

Ra. 1 :

Ra. 2 :       X    X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :           X

Ta. 8 :           X

---

To. 1 :

To. 2 :       X

---

Tu. 1 :

Tu. 4 :

---

TI HARE TĒRĀ RA NE HAU KO SUAHINATANE O TOKU IHO(A).

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 : X X X X X

Ma. 3 : X X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X X X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 :

To. 1 :

To. 2 : X X X

Tu. 1 :

Tu. 4 : X

TO MATAKOA MAKA TAE IKORO, KITATOU E HAI

Ha. 1 :	X
---------	---

Ha. 2 :	X
---------	---

Ha. 5 :	X
---------	---

---

Ma. 2 :	
---------	--

Ma. 3 :	
---------	--

---

Mq. 1 :	
---------	--

Mq. 2 :	
---------	--

---

Ra. 1 :	
---------	--

Ra. 2 :	
---------	--

Ra. 3 :	
---------	--

---

Sa. 1 :	X
---------	---

Sa. 2 :	X
---------	---

---

Ta. 6 :	
---------	--

Ta. 8 :	
---------	--

---

To. 1 :	
---------	--

To. 2 :	
---------	--

---

Tu. 1 :	
---------	--

Tu. 4 :	
---------	--

---



SATAU HAKAMIAMI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

TI GATAU TĒRĀ NE HANI. TIKOWA KIMĀTOU NOKO

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 :

Ta. 8 : X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

Ka. 16  
(cont.)IAI MATAU PIKI E ROK(O), KIMATOU E HAI TI

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 :

MATOU HAKAMIAMI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

MA KOE NE KĀ MAI AI IKA TURI KITĀTOU E KAI NIA MA

Ha. 1 :

Ha. 2 : X

X

Ha. 5 :

---

Ma. 2 : X

X

Ma. 3 :

X

X

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

X

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

TI IMU RE HUKE KOAU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :                   X

Ra. 3 :

---

Sa. 1 :                   X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :                   X

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

TI KĀREKE PEHE TĒRĀ E HAI KO TI KAU TO

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

MATAKOA MAKA HAKASAGA?

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---



MA KOAI KOWATU NATAU KISAKI KITI KOE?

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

X

---

To. 1 :

X

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

KU TIPITIPI 'IA TE UTU TIARĀKAU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :	X	X
---------	---	---

Ma. 3 :	X	X
---------	---	---

---

Mq. 1 :

Mq. 2 :	X	X
---------	---	---

---

Ra. 1 :

Ra. 2 :	X	X
---------	---	---

Ra. 3 :

---

Sa. 1 :	X	X
---------	---	---

Sa. 2 :	X	
---------	---	--

---

Ta. 6 :	X	X
---------	---	---

Ta. 8 :	X	X
---------	---	---

---

To. 1 :

To. 2 :

---

Tu. 1 :		X
---------	--	---

Tu. 4 :	X	X
---------	---	---

---

KU TIPITIPI 'IA TE UTU TIARĀKAU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :           X                           X

Ma. 3 :           X                           X

Mq. 1 :

Mq. 2 :           X                           X

Ra. 1 :

Ra. 2 :           X                           X

Ra. 3 :

Sa. 1 :           X                           X

Sa. 2 :           X

Ta. 6 :           X                           X

Ta. 8 :           X                           X

To. 1 :

To. 2 :

Tu. 1 :   X

Tu. 4 :           X                           X

KU TINAI 'IA TE PUAKA.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 : X X

Ma. 3 : X X

---

Mq. 1 :

Mq. 2 : X X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

Sa. 1 : X

Sa. 2 :

---

Ta. 6 : X

Ta. 8 : X

---

To. 1 :

To. 2 : X

---

Tu. 1 : X

Tu. 4 : X

---

NUINUI TA'AGA.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 : X X

Ma. 3 : X X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 : X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 : X

KOMUA. KAKORE AU I 'AKAROROGO MARI'E.

Ha. 1 : X

Ha. 2 : X X

Ha. 5 : X X

Ma. 2 : X X X X X

Ma. 3 : X X X X X

Mq. 1 :

Mq. 2 : X X X X

Ra. 1 :

Ra. 2 : X X X

Ra. 3 :

Sa. 1 : X X X

Sa. 2 :

Ta. 6 : X X X

Ta. 8 : X X X X X

To. 1 :

To. 2 : X

Tu. 1 : X X X X X

Tu. 4 : X X X X

KU TAU ATU RĀTOU KI TETA'I MOTU.

Ha. 1 :           X           X                   X

Ha. 2 :           X           X           X    X

Ha. 5 :           X           X           X    X

---

Ma. 2 :           X           X           X    X

Ma. 3 :           X           X           X    X

---

Mq. 1 :

Mq. 2 :           X           X           X    X

---

Ra. 1 :

Ra. 2 :           X           X                   X

Ra. 3 :

---

Sa. 1 :           X           X                   X

Sa. 2 :           X           X           X    X

---

Ta. 6 :           X           X           X    X

Ta. 8 :           X           X           X    X

---

To. 1 :

To. 2 :           X                            X

---

Tu. 1 :           X           X           X    X

Tu. 4 :           X           X           X    X

---

## E 'ENE A ARANUA NEI KI 'EA?

Ha. 1 :		X	X	
---------	--	---	---	--

Ha. 2 :		X	X	
---------	--	---	---	--

Ha. 5 :		X		
---------	--	---	--	--

---

Ma. 2 :	X	X	X	X
---------	---	---	---	---

Ma. 3 :	X	X	X	X
---------	---	---	---	---

---

Mq. 1 :				
---------	--	--	--	--

Mq. 2 :				X
---------	--	--	--	---

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :		X	X	X
---------	--	---	---	---

Ra. 3 :				
---------	--	--	--	--

---

Sa. 1 :		X		
---------	--	---	--	--

Sa. 2 :				X
---------	--	--	--	---

---

Ta. 6 :				
---------	--	--	--	--

Ta. 8 :		X	X	
---------	--	---	---	--

---

To. 1 :				
---------	--	--	--	--

To. 2 :				
---------	--	--	--	--

---

Tu. 1 :			X	
---------	--	--	---	--

Tu. 4 :				
---------	--	--	--	--

---



KU APOAPO MARI'E 'IA KOIA

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

X

---

Ma. 2 :

X

X

Ma. 3 :

X

X

---

Mq. 1 :

Mq. 2 :

X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

X

Tu. 4 :

---

E TAGATA 'ARATOA NUI.

Ha. 1 : X X

Ha. 2 : X X

Ha. 5 : X X

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X

Ta. 8 : X X

To. 1 :

To. 2 : X

Tu. 1 : x

Tu. 4 : x X

E KORÉ KOE E MOURI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :        X    X        X

Ma. 3 :        X    X        X

Mq. 1 :

Mq. 2 :        X    X

Ra. 1 :

Ra. 2 :        X    X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :                X

Ta. 8 :        X    X

To. 1 :

To. 2 :                                X

Tu. 1 :        X    X

Tu. 4 :        X    X

KU POHO KI TE REO NUNUI ATOA, KI TE VARAVARAGA ATU.

Ha. 1 :		X	X		
Ha. 2 :		X	X		X
Ha. 5 :		X	X		
Ma. 2 :	X	X	X	X	X
Ma. 3 :	X	X	X	X	X
Mq. 1 :					
Mq. 2 :	X	X	X		
Ra. 1 :					
Ra. 2 :		X			
Ra. 3 :					
Sa. 1 :					
Sa. 2 :		X			
Ta. 6 :		X			
Ta. 8 :		X	X		
To. 1 :					
To. 2 :					
Tu. 1 :	X	X			X
Tu. 4 :					

MEA 'ARAKE AKE KIAKU TETA'I.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X X

To. 1 :

To. 2 :

Tu. 1 : X X

Tu. 4 : X X

'AO MAI, KA 'AO TĀTOU KI TE 'AKAIRIGA.

Ha. 1 :			X	
Ha. 2 :			X	
Ha. 5 :			X	
<hr/>				
Ma. 2 :	X	X	X	X
Ma. 3 :	X	X	X	X
<hr/>				
Mq. 1 :				
Mq. 2 :			X	
<hr/>				
Ra. 1 :				
Ra. 2 :	X		X	
Ra. 3 :				
<hr/>				
Sa. 1 :	X	X	X	
Sa. 2 :	X	X	X	
<hr/>				
Ta. 6 :			X	
Ta. 8 :	X	X	X	
<hr/>				
To. 1 :				
To. 2 :	X	X	X	
<hr/>				
Tu. 1 :			X	
Tu. 4 :	X	X	X	X
<hr/>				

MEA KA 'ORO TE UA.

Ha. 1 :        X                                X

Ha. 2 :        X                                X

Ha. 5 :        X                                X

Ma. 2 :        X            X                                X

Ma. 3 :        X            X                                X

Mq. 1 :

Mq. 2 :        X            X                                X

Ra. 1 :

Ra. 2 :        X    X

Ra. 3 :

Sa. 1 :        X

Sa. 2 :        X

Ta. 6 :    X

Ta. 8 :        X    X

To. 1 :

To. 2 :                                X

Tu. 1 :        X    X

Tu. 4 :        X    X

E POROTU KIAKOE MEA AKATARI MAI KI TOKOE MATATAU.

Ha. 1 :

Ha. 2 : X

Ha. 5 :

---

 Ma. 2 : X X X X X

 Ma. 3 : X X X X
 

---

Mq. 1 :

 Mq. 2 : X X
 

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

 Sa. 1 : X

Sa. 2 : X

---

 Ta. 6 : X

Ta. 8 : X X

---

 To. 1 :

To. 2 : X

---

 Tu. 1 : X X X

 Tu. 4 : X
 

---



E KORE KOE E 'AKATATA, A VA'I RIRI'A A MEA ANA.

Ha. 1 :

Ha. 2 : X

Ha. 5 :

---

Ma. 2 : X X X X X X

Ma. 3 : X X X X X X

---

Mq. 1 :

Mq. 2 : X X X

---

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 : X X

Ta. 8 : X X

---

To. 1 :

To. 2 : X

---

Tu. 1 : X X

Tu. 4 : X X

---

I REIRA NOTI A TAGATA ARA I TE A'IA'I.

Ha. 1 :	X			
Ha. 2 :	X			X
Ha. 5 :	X			X
<hr/>				
Ma. 2 :	X	X	X	X
Ma. 3 :	X	X	X	X
<hr/>				
Mq. 1 :				
Mq. 2 :	X	X		X
<hr/>				
Ra. 1 :				
Ra. 2 :	X	X		X
Ra. 3 :				
<hr/>				
Sa. 1 :		X		
Sa. 2 :		X		
<hr/>				
Ta. 6 :	X			X
Ta. 8 :	X	X		X
<hr/>				
To. 1 :				
To. 2 :		X		
<hr/>				
Tu. 1 :	X	X		X
Tu. 4 :	X	X	X	X
<hr/>				

Ma. 17

I REIRA 'UA MATOU I TE TAUGA MAI O TE PA'I.

Ha. 1 :	X	X	X	
Ha. 2 :	X	X		
Ha. 5 :	X	X		
Ma. 2 :	X	X	X	X
Ma. 3 :	X	X	X	X
Mq. 1 :				
Mq. 2 :	X	X	X	X
Ra. 1 :				
Ra. 2 :	X	X	X	X
Ra. 3 :				
Sa. 1 :		X		
Sa. 2 :		X	X	
Ta. 6 :	X	X		X
Ta. 8 :	X	X	X	X
To. 1 :				
To. 2 :		X	X	
Tu. 1 :	X	X	X	X
Tu. 4 :	X	X	X	X

KU VIKI AU, KAKORE RA AU I TAE.

Ha. 1 :

Ha. 2 :           X       X       X

Ha. 5 :           X       X       X

---

Ma. 2 :        X   X       X       X   X

Ma. 3 :        X   X       X       X   X

---

Mq. 1 :

Mq. 2 :           X       X       X    X

---

Ra. 1 :

Ra. 2 :        X   X       X       X   X

Ra. 3 :

---

Sa. 1 :           X

Sa. 2 :           X

---

Ta. 6 :                   X       X    X

Ta. 8 :                   X       X    X

---

To. 1 :

To. 2 :

---

Tu. 1 :           X       X       X    X

Tu. 4 :           X       X       X    X

---

KARUA A KOROIO KOIA KI TE TATARIRAGA.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X X

---

Ma. 2 : X X X X

Ma. 3 : X X X X

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 :

Ta. 8 : X

---

To. 1 :

To. 2 : X

---

Tu. 1 :

Tu. 4 :

---

## E 'AO 'UA MAI A TAGATA ANA ME TĀTOU.

Ha. 1 :			X
---------	--	--	---

Ha. 2 :		X	X
---------	--	---	---

Ha. 5 :			X
---------	--	--	---

---

Ma. 2 :	X	X	X
---------	---	---	---

Ma. 3 :	X	X	X
---------	---	---	---

---

Mq. 1 :			
---------	--	--	--

Mq. 2 :		X	X
---------	--	---	---

---

Ra. 1 :			
---------	--	--	--

Ra. 2 :		X	X
---------	--	---	---

Ra. 3 :			
---------	--	--	--

---

Sa. 1 :		X	X
---------	--	---	---

Sa. 2 :	X	X	X
---------	---	---	---

---

Ta. 6 :		X	X
---------	--	---	---

Ta. 8 :		X	
---------	--	---	--

---

To. 1 :			
---------	--	--	--

To. 2 :		X	
---------	--	---	--

---

Tu. 1 :		X	X
---------	--	---	---

Tu. 4 :	X	X	X
---------	---	---	---

---



'AO TĀTOU KI TETA'I KAOKAO.

Ha. 1 : X  
 Ha. 2 : X  
 Ha. 5 : X

---

Ma. 2 : X X X X  
 Ma. 3 : X X X X

---

Mq. 1 :  
 Mq. 2 : X X

---

Ra. 1 :  
 Ra. 2 : X X X  
 Ra. 3 :

---

Sa. 1 : X  
 Sa. 2 : X X X

---

Ta. 6 : X X X  
 Ta. 8 : X X X

---

To. 1 :  
 To. 2 : X X

---

Tu. 1 : X  
 Tu. 4 : X X X X

---



KU TUTAKI ATU TANE KIANA INENA'I.

Ha. 1 : X  
 Ha. 2 : X  
 Ha. 5 : X

---

Ma. 2 : X X X  
 Ma. 3 : X X X X

---

Mq. 1 :  
 Mq. 2 : X X

---

Ra. 1 :  
 Ra. 2 : X X  
 Ra. 3 :

---

Sa. 1 : X  
 Sa. 2 : X

---

Ta. 6 :  
 Ta. 8 : X X

---

To. 1 :  
 To. 2 : X

---

Tu. 1 : X X X  
 Tu. 4 : X X

---

KAKORE KOIA E POROTU KI A TAGATA ARA.

Ha. 1 :

Ha. 2 :       X       X

Ha. 5 :

---

Ma. 2 :       X       X       X       X       XMa. 3 :       X       X       X       X       X

---

Mq. 1 :

Mq. 2 :       X       X       X       X

Ra. 1 :

Ra. 2 :       X       X       X

Ra. 3 :

---

Sa. 1 :       X

Sa. 2 :

---

Ta. 6 :       X       X       X       XTa. 8 :       X       X       X       X

---

To. 1 :

To. 2 :       X

---

Tu. 1 :       X       X       XTu. 4 :       X       X       X       X

---

E 'AO MAI ANA TE RAGI KI TE POROTU RAGA.

Ha. 1 :	X	X	
---------	---	---	--

Ha. 2 :		X	X
---------	--	---	---

Ha. 5 :	X	X	
---------	---	---	--

---

Ma. 2 :	X	X	X
---------	---	---	---

Ma. 3 :	X	X	X
---------	---	---	---

---

Mq. 1 :			
---------	--	--	--

Mq. 2 :			X
---------	--	--	---

---

Ra. 1 :			
---------	--	--	--

Ra. 2 :	X	X	X
---------	---	---	---

Ra. 3 :			
---------	--	--	--

---

Sa. 1 :		X	
---------	--	---	--

Sa. 2 :		X	
---------	--	---	--

---

Ta. 6 :			
---------	--	--	--

Ta. 8 :		X	X
---------	--	---	---

---

To. 1 :			
---------	--	--	--

To. 2 :		X	
---------	--	---	--

---

Tu. 1 :			
---------	--	--	--

Tu. 4 :	X		
---------	---	--	--

---

E MEA MĀTOU KA 'AO KI TE ATUTA'A.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 : X

Tu. 1 : X

Tu. 4 : X

M1. 1

HE PAI KIĀ IA TĀNA MAHI.

Ha. 1 :

Ha. 2 :           X       X

Ha. 5 :

---

Sa. 1 :                       X

Sa. 2 :           X

---

To. 2 :  

---



KI TAKU FAKĀRO HE MAGERE ĀIA.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 :

---

KI ATU AU "KIA TERE." EGARI KA KATA NOA MAI

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X X

---

Sa. 1 : X

Sa. 2 :

---

To. 2 :

---



225.

Mi. 3  
(cont.)

AIA ME TE ATA HAERE TONU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 : X                    X

Sa. 2 : X

---

To. 2 :

---

I AU E TAMARIKI ANA I HIAHIA AHAU HE TĀKUTA AHAU.

Ha. 1 : X X

Ha. 2 : X X X

Ha. 5 : X

Sa. 1 : X X X

Sa. 2 : X X

To. 2 :

KUA KORE ĒRĀ FAKĀRO IA AU I NAIANEI.

Ha. 1 :

Ha. 2 : X

Ha. 5 :

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 :

---

KO TAKU TAMA HE TĀKUTA.

Ha. 1 :           X

Ha. 2 :

Ha. 5 :

---

Sa. 1 :           X

Sa. 2 :    X       X

---

To. 2 :

---

HIAHIA KE AHAU, KI TE MAHI PAMU ME TE HĪ IKA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :	X	X
---------	---	---

Sa. 2 :	X	
---------	---	--

---

To. 2 :		
---------	--	--

---

INANAHI KA MAU I AHAU E FĀ GA IKA NUNUI ME TE

Ha. 1 :

Ha. 2 :

Ha. 5 :

X

---

Sa. 1 :

X

X

X

X

Sa. 2 :

X

X

---

To. 2 :

---

TUNA KOTAHI.

Ha. 1 :

Ha. 2 :           X

Ha. 5 :           X

---

Sa. 1 :

Sa. 2 :

---

To. 2 :  

---

ME HE MEA. KA MAU I AU HE IKA APOPO KA

Ha. 1 :

Ha. 2 :

X

X

Ha. 5 :

X

X

X

Sa. 1 :

X

X

Sa. 2 :

X

To. 2 :



HOKOGIA E AU NA KA TOGO KAI MAI I TE TOA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :                    X

Sa. 2 :

---

To. 2 :

---

E HIAHIA ANA HOKI AU KIA RIRO MAI TETAHI KĀKAHU

Ha. 1 : X

Ha. 2 : X X X

Ha. 5 : X X

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 :  

---

ME TETAHI NAIHI.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Sa. 1 :

Sa. 2 :

---

To. 2 :  

---

KA HO ATU E AU TE NAIHI KI TAKU HOA.

Ha. 1 :                   X                   X

Ha. 2 :                   X                   X X

Ha. 5 :   X

Sa. 1 :                   X

Sa. 2 :

To. 2 :

KA TAE KOE KI REIRA KA KAI HAKARI TĀTOU.

Ha. 1 :		X
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Sa. 1 : X

Sa. 2 :		X
---------	--	---

---

To. 2 :

---

I TERĀ TAU KA KAI HAKARI MĀTOU, KA KAI TONU

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X X

Sa. 1 : X

Sa. 2 : X

To. 2 :

MĀTOU KIA KI RA ANO.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Sa. 1 :

Sa. 2 : X

---

To. 2 :  

---

HARI KATOA MĀTOU I TE PAI O Ā MĀTOU MAHI.

Ha. 1 :                   X   X

Ha. 2 :

Ha. 5 :                   X   X

---

Sa. 1 :                   X

Sa. 2 :                   X   X

---

To. 2 :

---



MEA PATU TE POAKA KI TE NAIHI. NA TAKU MATUA I PATU.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

X

---

Sa. 1 :

X

X

Sa. 2 :

X

---

To. 2 :

---

NA AKU TUAKANA-TANE I KERI TE HAGI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :

Sa. 2 :

---

To. 2 :

---



MA WAI E HARI MAI GA TAOGA?

Ha. 1 :           X           X

Ha. 2 :           X           X

Ha. 5 :           X           X

---

Sa. 1 :           X

Sa. 2 :           X

---

To. 2 :

---

KA HAERE TATA TONU MAI KOE?

Ha. 1 : X

Ha. 2 : X X

Ha. 5 : X

---

Sa. 1 : X X

Sa. 2 : X X

---

To. 2 :  

---

HAERE RA, KA HOKU AU I NAIA NEI.

Ha. 1 : X

Ha. 2 : X X

Ha. 5 : X

---

Sa. 1 : X

Sa. 2 : X X

---

To. 2 :

---

E MOKEMOKE ANA MĀTOU KIA KŌUTOU, KĀUA E

Ha. 1 :	X	
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Sa. 1 :	X	
Sa. 2 :	X	X

---

To. 2 :		
---------	--	--

---

WAREWARE KIA MĀTOU.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 :  

---



AHA MEA MEMAO TE KA'AVAI?

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 : X

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

MEA HANA MAE'A •

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 : X X X

Mq. 2 : X X X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 : X

Ta. 8 : X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

UA TO'O MĀTUA O TO 'ATOU KAHU .

Ha. 1 :                   X  
 Ha. 2 :                   X  
 Ha. 5 :                   X

---

Ma. 2 :  
 Ma. 3 :                   X

---

Mq. 1 :               X    X               X    X  
 Mq. 2 :               X    X               X    X

---

Ra. 1 :  
 Ra. 2 :                   X  
 Ra. 3 :                   X

---

Sa. 1 :                   X  
 Sa. 2 :                   X

---

Ta. 6 :                   X  
 Ta. 8 :                   X

---

To. 1 :  
 To. 2 :                   X

---

Tu. 1 :  
 Tu. 4 :                   X

---

TUMOE NUI TE HIAMOE TINA O TE VAHINE.

Ha. 1 :		X	
Ha. 2 :	X	X	X
Ha. 5 :	X	X	

---

Ma. 2 :			
Ma. 3 :			X

---

Mq. 1 :		X	X
Mq. 2 :	X	X	X

---

Ra. 1 :			
Ra. 2 :			X
Ra. 3 :			X

---

Sa. 1 :		X	X
Sa. 2 :		X	X

---

Ta. 6 :			X
Ta. 8 :		X	X

---

To. 1 :			
To. 2 :			X

---

Tu. 1 :			
Tu. 4 :		X	X

---



UA MOTU TOIA 'I'IMA I TE KOHE .

Ha. 1 :

Ha. 2 :           X

Ha. 5 :           X

Ma. 2 :

Ma. 3 :           X       X       X

Mq. 1 :           X       X       X           X

Mq. 2 :           X       X       X           X

Ra. 1 :

Ra. 2 :           X

Ra. 3 :                           X

Sa. 1 :

Sa. 2 :

Ta. 6 :           X           X           X

Ta. 8 :           X           X           X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :           X           X

A'UA'U ATU 'OE .

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 :

Ma. 3 : X X

Mq. 1 : X X

Mq. 2 : X X

Ra. 1 :

Ra. 2 : X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X X

Ta. 8 : X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X

'A'O'E HE 'ENATA I HA 'AMETA 'U TIA .

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 : X

Mq. 1 : X X X

Mq. 2 : X X X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X



'A'O'E I TU'UA .

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :           X       X

Mq. 1 :           X       X

Mq. 2 :           X       X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

Sa. 2 :                       X

Ta. 6 :

Ta. 8 :           X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :           X       X



I 'OTO O TE FA'E .

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 : X

Mq. 1 : X X

Mq. 2 : X X

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X

I VAHO O TE FA'E TE MOA.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

X

X

Ma. 2 :

Ma. 3 :

X

X

X

Mq. 1 :

X

X

Mq. 2 :

X

X

Ra. 1 :

Ra. 2 :

Ra. 3 :

X

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

X

X

To. 1 :

To. 2 :

X

Tu. 1 :

Tu. 4 :

X

X

X

IA 'AVEI ME 'OE A PE'AU ATU 'OE A TU'U MAI

Ha. 1 :

Ha. 2 :

X

X

Ha. 5 :

X

X

Ma. 2 :

Ma. 3 :

X

X

X

X

Mq. 1 :

X

X

X

X

X

Mq. 2 :

X

X

X

X

X

Ra. 1 :

Ra. 2 :

X

Ra. 3 :

X

Sa. 1 :

X

X

Sa. 2 :

X

X

X

Ta. 6 :

X

Ta. 8 :

X

X

To. 1 :

To. 2 :

X

Tu. 1 :

Tu. 4 :

X

X

X

X

IA'OE TE PUA.

Ha. 1 :                   X           X

Ha. 2 :                                   X

Ha. 5 :                   X

Ma. 2 :

Ma. 3 :                   X           X

Mq. 1 :                   X           X

Mq. 2 :                                   X

Ra. 1 :

Ra. 2 :

Ra. 3 :                                   X

Sa. 1 :                   X

Sa. 2 :                   X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :                                   X

'A'O'E AU I 'TTE I HEA TOIA 'EKA.

Ha. 1 :           X    X    X

Ha. 2 :           X    X    X

Ha. 5 :           X    X    X

---

Ma. 2 :

Ma. 3 :           X    X    X    X

---

Mq. 1 :           X    X    X    X    X    X

Mq. 2 :           X    X    X    X    X    X

---

Ra. 1 :

Ra. 2 :           X    X    X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :           X    X    X    X

Ta. 8 :           X    X    X    X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :           X    X    X    X

---





MEA 'OA TO'OE TIA'I TINA IA'U?

Ha. 1 :		X		X
---------	--	---	--	---

Ha. 2 :		X		X
---------	--	---	--	---

Ha. 5 :		X		X
---------	--	---	--	---

---

Ma. 2 :				
---------	--	--	--	--

Ma. 3 :		X		X
---------	--	---	--	---

---

Mq. 1 :	X	X	X	X
---------	---	---	---	---

Mq. 2 :	X	X	X	X
---------	---	---	---	---

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :	X	X	X	X
---------	---	---	---	---

Ra. 3 :		X	X	X
---------	--	---	---	---

---

Sa. 1 :		X		X
---------	--	---	--	---

Sa. 2 :		X		X
---------	--	---	--	---

---

Ta. 6 :	X	X	X	X
---------	---	---	---	---

Ta. 8 :	X	X	X	X
---------	---	---	---	---

---

To. 1 :				
---------	--	--	--	--

To. 2 :				X
---------	--	--	--	---

---

Tu. 1 :				
---------	--	--	--	--

Tu. 4 :	X	X	X	X
---------	---	---	---	---

---



NA TITAHI HANA.

Ha. 1 :

Ha. 2 :                   X       X

Ha. 5 :                   X       X

---

Ma. 2 :

Ma. 3 :                   X       X

---

Mq. 1 :                   X       X

Mq. 2 :                   X       X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :                   X

---

Mq. 17

'A'O'E AU E HE'E O'IO'I IĀ TIHE TO 'ĀTOU HOA.

Ha. 1 : X

Ha. 2 : X X X X

Ha. 5 : X X

Ma. 2 :

Ma. 3 : X X X X X

Mq. 1 : X X X X X

Mq. 2 : X X X X X X X

Ra. 1 :

Ra. 2 : X

Ra. 3 : X X X X

Sa. 1 :

Sa. 2 :

Ta. 6 : X X

Ta. 8 : X X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X

MEA HA'ATAETAE AU IĀIA NA TE MEA MEA MEITA'I.

Ha. 1 :		X			
Ha. 2 :		X	X	X	
Ha. 5 :		X	X	X	X
Ma. 2 :					
Ma. 3 :		X	X	X	X
Mq. 1 :		X	X	X	X
Mq. 2 :	X	X		X	X
Ra. 1 :					
Ra. 2 :					
Ra. 3 :		X	X		
Sa. 1 :					
Sa. 2 :		X	X		
Ta. 6 :					X
Ta. 8 :				X	X
To. 1 :					
To. 2 :			X		
Tu. 1 :					
Tu. 4 :		X		X	X

KO'ANA IA'OE IA HE'E MEI TE MEA E HUI PONIHO'O MAI.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 :

Ma. 3 : X X

Mq. 1 : X X X X X X

Mq. 2 : X X X X X X

Ra. 1 :

Ra. 2 :

Ra. 3 : X

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X X

Ta. 8 :

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 :

UA TOPA 'ĀTOU MEI 'UNA O TE VA'A.

Ha. 1 :

Ha. 2 :

Ha. 5 :           X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :           X       X       X           X

Mq. 2 :           X       X       X           X

---

Ra. 1 :

Ra. 2 :           X                   X           X

Ra. 3 :           X                                   X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :           X

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :           X

---

ENĀ TE HOE I TE TUA O TE FA'E.

Ha. 1 :		X	X	
Ha. 2 :				
Ha. 5 :			X	
Ma. 2 :				
Ma. 3 :		X	X	X
Mq. 1 :		X	X	X
Mq. 2 :	X	X	X	X
Ra. 1 :				
Ra. 2 :		X		
Ra. 3 :		X		
Sa. 1 :				
Sa. 2 :				
Ta. 6 :				
Ta., 8 :	X	X		X
To. 1 :				
To. 2 :				
Tu. 1 :				
Tu. 4 :	X	X	X	X



UA TAHA MAI IO'U 'A'O'E I 'ITE MAI IA'U.

Ha. 1 :                   X    X           X       X

Ha. 2 :                   X    X           X       X

Ha. 5 :                   X    X           X       X

---

Ma. 2 :

Ma. 3 :           X       X    X           X       X

---

Mq. 1 :           X       X    X           X       X

Mq. 2 :           X       X    X           X       X

---

Ra. 1 :

Ra. 2 :           X       X    X           X       X

Ra. 3 :           X       X    X           X       X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :                   X    X           X       X

Ta. 8 :                   X    X           X       X

---

To. 1 :

To. 2 :                   X

---

Tu. 1 :

Tu. 4 :           X       X    X           X       X

---

AHA E TEKAO TOITOI? E, 'OIA IHOA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 : X X

Mq. 1 : X X X X X

Mq. 2 : X X X X X

Ra. 1 :

Ra. 2 : X X

Ra. 3 : X X

Sa. 1 :

Sa. 2 :

Ta. 6 : X X

Ta. 8 : X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X

'A'O'E AU E HE'E.

Ha. 1 :	X	X	
Ha. 2 :	X	X	X
Ha. 5 :	X	X	X

---

Ma. 2 :			
Ma. 3 :	X	X	X

---

Mq. 1 :	X	X	X
Mq. 2 :	X	X	X

---

Ra. 1 :			
Ra. 2 :	X	X	
Ra. 3 :	X	X	

---

Sa. 1 :			
Sa. 2 :			

---

Ta. 6 :	X	X	
Ta. 8 :	X	X	X

---

To. 1 :			
To. 2 :		X	

---

Tu. 1 :			
Tu. 4 :	X	X	X

---

KAIKAI IA ME MĀTOU.

Ha. 1 :			X
---------	--	--	---

Ha. 2 :			X
---------	--	--	---

Ha. 5 :		X	X
---------	--	---	---

---

Ma. 2 :			
---------	--	--	--

Ma. 3 :		X	X
---------	--	---	---

---

Mq. 1 :	X	X	X
---------	---	---	---

Mq. 2 :	X	X	X
---------	---	---	---

---

Ra. 1 :			
---------	--	--	--

Ra. 2 :	X		X
---------	---	--	---

Ra. 3 :	X		X
---------	---	--	---

---

Sa. 1 :	X		
---------	---	--	--

Sa. 2 :			X
---------	--	--	---

---

Ta. 6 :	X		X
---------	---	--	---

Ta. 8 :	X		X
---------	---	--	---

---

To. 1 :			
---------	--	--	--

To. 2 :	X		X
---------	---	--	---

---

Tu. 1 :			
---------	--	--	--

Tu. 4 :	X		
---------	---	--	--

---

KA 'AGA'AGA TĀTOU POUROA KE RAUKA TĀTOU

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X X

Ma. 3 : X X

Mq. 1 :

Mq. 2 : X

Ra. 1 : X X X X

Ra. 2 : X X X X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 : X

Tu. 1 : X X X

Tu. 4 : X X

I TE KAIKAI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 : X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 : X

Ra. 2 : X

Ra. 3 :

Sa. 1 : X

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X

KARE E PARUPARU I TE AU TAIME.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 : X X

Ma. 3 : X X

Mq. 1 :

Mq. 2 : X

Ra. 1 : X X

Ra. 2 : X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X

To. 1 :

To. 2 :

Tu. 1 : X

Tu. 4 : X X

POUROA TE VA'INE E TE TANE TAUTURU I TE TIKI

Ha. 1 :			X		
Ha. 2 :	X	X	X		
Ha. 5 :	X	X	X		
Ma. 2 :	X	X	X	X	X
Ma. 3 :	X	X	X	X	X
Mq. 1 :					
Mq. 2 :	X	X	X	X	X
Ra. 1 :	X	X	X	X	X
Ra. 2 :	X	X	X	X	X
Ra. 3 :					
Sa. 1 :		X	X		
Sa. 2 :		X	X		
Ta. 6 :	X	X	X	X	X
Ta. 8 :	X	X	X	X	
To. 1 :					
To. 2 :		X			
Tu. 1 :	X	X	X	X	X
Tu. 4 :	X	X	X	X	



I TETAI KAI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :	X
---------	---

Ma. 3 :	X
---------	---

---

Mq. 1 :

Mq. 2 :	X
---------	---

---

Ra. 1 :	X
---------	---

Ra. 2 :	X
---------	---

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :	X
---------	---

Ta. 8 :	X
---------	---

---

To. 1 :

To. 2 :	X
---------	---

---

Tu. 1 :	X
---------	---

Tu. 4 :	X
---------	---

---

## KA 'AERE TE TAMARIKI E TO RĀTOU METUA RU'AU.

Ha. 1 :	X	X			
Ha. 2 :		X	X		
Ha. 5 :		X		X	
Ma. 2 :	X	X	X	X	X
Ma. 3 :	X	X	X	X	X
Mq. 1 :					
Mq. 2 :		X	X	X	X
Ra. 1 :	X	X	X	X	X
Ra. 2 :	X	X	X	X	X
Ra. 3 :					
Sa. 1 :		X			
Sa. 2 :		X	X		
Ta. 6 :	X	X	X	X	X
Ta. 8 :	X	X	X	X	X
To. 1 :					
To. 2 :		X	X		
Tu. 1 :	X	X	X	X	X
Tu. 4 :	X	X	X	X	X

ME MĀTA RĀTOU KA RAUKA RĀTOU I TE 'AERE

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X

Ma. 3 : X X

Mq. 1 :

Mq. 2 : X

Ra. 1 : X X X X

Ra. 2 : X X X X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X X

Ta. 8 : X X

To. 1 :

To. 2 : X

Tu. 1 : X X X

Tu. 4 : X X

## I TE 'AṖĪ I TE PŌPOGĪ.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

X

Ma. 3 :

X

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

X

X

Ra. 2 :

X

X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

---

Tu. 1 :

Tu. 4 :

---

TE TANE KA TIKI I TE TARO E KA KAKE I TE NIU.

Ha. 1 :	X		X			X
---------	---	--	---	--	--	---

Ha. 2 :	X					X
---------	---	--	--	--	--	---

Ha. 5 :	X		X			
---------	---	--	---	--	--	--

---

Ma. 2 :	X	X	X			
---------	---	---	---	--	--	--

Ma. 3 :	X	X	X			
---------	---	---	---	--	--	--

---

Mq. 1 :						
---------	--	--	--	--	--	--

Mq. 2 :	X	X	X			
---------	---	---	---	--	--	--

---

Ra. 1 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ra. 2 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ra. 3 :						
---------	--	--	--	--	--	--

---

Sa. 1 :				X	X	
---------	--	--	--	---	---	--

Sa. 2 :	X					
---------	---	--	--	--	--	--

---

Ta. 6 :	X		X			
---------	---	--	---	--	--	--

Ta. 8 :	X	X	X	X		
---------	---	---	---	---	--	--

---

To. 1 :						
---------	--	--	--	--	--	--

To. 2 :	X			X		
---------	---	--	--	---	--	--

---

Tu. 1 :	X		X			
---------	---	--	---	--	--	--

Tu. 4 :	X	X	X			
---------	---	---	---	--	--	--

---

Ra. 7

MĀTA TE MATAGI NO REIRA KUA TOPA TE URU KI

Ha. 1 :

Ha. 2 :           X           X

Ha. 5 :           X           X                           X

Ma. 2 :   X           X           X           X           X

Ma. 3 :           X           X           X           X

Mq. 1 :

Mq. 2 :           X           X           X           X

Ra. 1 :   X           X           X           X           X

Ra. 2 :   X           X           X           X           X

Ra. 3 :

Sa. 1 :           X

Sa. 2 :           X

Ta. 6 :                           X           X

Ta. 8 :   X           X           X           X           X

To. 1 :

To. 2 :           X

Tu. 1 :   X           X           X           X           X

Tu. 4 :           X           X           X           X

RUGA I TE 'ENUA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

 Ma. 2 :                   X                   X

 Ma. 3 :                   X                   X
 

---

Mq. 1 :

 Mq. 2 :                   X                   X
 

---

Ra. 1 :                   X                   X

Ra. 2 :                   X

Ra. 3 :

---

 Sa. 1 :

Sa. 2 :

---

 Ta. 6 :                   X                   X

 Ta. 8 :                   X                   X
 

---

To. 1 :

 To. 2 :   X
 

---

Tu. 1 :                   X                   X

 Tu. 4 :                   X                   X
 

---

KARE MĀTOU I KITE I TE URU I TEIA RĀ NO REIRA KUA PĪRAU.

Ha. 1 :	X			X	X	X			X
Ha. 2 :	X			X	X	X	X		
Ha. 5 :	X	X		X	X	X	X		
Ma. 2 :	X	X	X	X	X	X	X		
Ma. 3 :	X	X	X	X				X	X
Mq. 1 :									
Mq. 2 :	X			X				X	
Ra. 1 :	X	X	X	X	X	X	X		X
Ra. 2 :	X	X	X	X				X	X
Ra. 3 :									
Sa. 1 :	X								
Sa. 2 :	X								
Ta. 6 :	X			X				X	
Ta. 8 :	X			X	X	X		X	
To. 1 :									
To. 2 :									
Tu. 1 :	X	X	X	X	X	X	X		
Tu. 4 :	X	X	X	X				X	X



APOPŌ KA 'APAI TO MĀTOU 'OA I TŌNA VAKA

Ha. 1 :	X		X			
Ha. 2 :	X		X			
Ha. 5 :	X		X			
Ma. 2 :	X	X	X	X	X	X
Ma. 3 :	X		X	X		X
Mq. 1 :						
Mq. 2 :				X	X	
Ra. 1 :	X	X	X	X	X	X
Ra. 2 :	X	X	X		X	X
Ra. 3 :						
Sa. 1 :						
Sa. 2 :			X			
Ta. 6 :			X			
Ta. 8 :	X	X	X	X	X	X
To. 1 :						
To. 2 :			X			X
Tu. 1 :			X	X	X	X
Tu. 4 :		X				X

## KI TE 'ENUA

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

 Ma. 2 : X

 Ma. 3 : X
 

---

Mq. 1 :

 Mq. 2 : X
 

---

Ra. 1 : X

Ra. 2 : X

Ra. 3 :

---

 Sa. 1 :

Sa. 2 :

---

 Ta. 6 :

Ta. 8 : X

---

 To. 1 :

To. 2 : X

---

 Tu. 1 : X

 Tu. 4 : X
 

---

E MĀTARO MEITAKI 'AIA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :           X           X           X

Ma. 3 :           X           X

Mq. 1 :

Mq. 2 :           X           X           X

Ra. 1 :           X           X           X

Ra. 2 :           X           X           X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :           X           X           X

To. 1 :

To. 2 :

Tu. 1 :           X           X           X

Tu. 4 :           X           X

KA TIKI 'AIA I TETAI IKA NA MATOU E NA

Ha. 1 :					X
---------	--	--	--	--	---

Ha. 2 :					X
---------	--	--	--	--	---

Ha. 5 :					X
---------	--	--	--	--	---

---

Ma. 2 :	X	X		X	X
---------	---	---	--	---	---

Ma. 3 :	X		X	X	X
---------	---	--	---	---	---

---

Mq. 1 :					
---------	--	--	--	--	--

Mq. 2 :	X	X	X	X	X
---------	---	---	---	---	---

---

Ra. 1 :	X	X		X	X
---------	---	---	--	---	---

Ra. 2 :	X	X		X	X
---------	---	---	--	---	---

Ra. 3 :					
---------	--	--	--	--	--

---

Sa. 1 :				X	X
---------	--	--	--	---	---

Sa. 2 :					X
---------	--	--	--	--	---

---

Ta. 6 :	X		X	X	X
---------	---	--	---	---	---

Ta. 8 :		X	X	X	X
---------	--	---	---	---	---

---

To. 1 :					
---------	--	--	--	--	--

To. 2 :				X	
---------	--	--	--	---	--

---

Tu. 1 :	X		X	X	X
---------	---	--	---	---	---

Tu. 4 :	X	X		X	X
---------	---	---	--	---	---

---

TANA KAIGA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :                   X    X

Ma. 3 :

Mq. 1 :

Mq. 2 :                   X

Ra. 1 :                   X    X

Ra. 2 :                   X    X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :                   X

Ta. 8 :                   X

To. 1 :

To. 2 :                                X

Tu. 1 :                   X

Tu. 4 :

KITE 'AIA I TE TAUTAI, KOAU KARE AU E KITE.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X X

Ma. 2 : X X X X X

Ma. 3 : X X X X

Mq. 1 :

Mq. 2 : X X X X X

Ra. 1 : X X X X X X X

Ra. 2 : X X X X X X X

Ra. 3 :

Sa. 1 :

Sa. 2 : X

Ta. 6 : X X X X X X X

Ta. 8 : X X X X X X X

To. 1 :

To. 2 : X

Tu. 1 : X X X X X X X

Tu. 4 : X X X X X X X

'INAGARO 'AIA I TE 'OKI MAI, KINO ROA TE MOANA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

X

X

Ma. 2 :

X

X

X

X

X

Ma. 3 :

X

X

X

X

X

Mq. 1 :

Mq. 2 :

Ra. 1 :

X

X

X

X

X

Ra. 2 :

X

X

X

X

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

X

X

Ta. 8 :

X

X

X

X

X

To. 1 :

To. 2 :

X

Tu. 1 :

X

X

X

X

X

Tu. 4 :

X

X

X

X

X

'OKE MĀTOU I TE PUAKA, RAUKA TĀNA MAGAO.

Ha. 1 :		X				
Ha. 2 :		X				X
Ha. 5 :		X				
<hr/>						
Ma. 2 :		X	X	X		
Ma. 3 :		X	X			X
<hr/>						
Mq. 1 :						
Mq. 2 :		X	X			
<hr/>						
Ra. 1 :	X	X	X	X		X
Ra. 2 :	X	X	X	X	X	
Ra. 3 :						
<hr/>						
Sa. 1 :		X	X			
Sa. 2 :		X				
<hr/>						
Ta. 6 :		X	X			X
Ta. 8 :		X	X			
<hr/>						
To. 1 :						
To. 2 :						
<hr/>						
Tu. 1 :		X	X			
Tu. 4 :		X	X			
<hr/>						



'INAGARO MATOU I TE KIRI NO TE PAU.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X

Ra. 1 : X X X X

Ra. 2 : X X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X X X

Ta. 8 : X X X X

To. 1 :

To. 2 : X

Tu. 1 : X X

Tu. 4 : X X X X

## E 'URA I TEIA PŌ NA TAKU TUAGANE MEGITI

Ha. 1 :		X			
Ha. 2 :		X	X		
Ha. 5 :		X	X		
<hr/>					
Ma. 2 :	X	X	X	X	X
Ma. 3 :		X	X		
<hr/>					
Mq. 1 :					
Mq. 2 :	X	X	X	X	
<hr/>					
Ra. 1 :	X	X	X	X	X
Ra. 2 :	X	X	X	X	X
Ra. 3 :					
<hr/>					
Sa. 1 :		X	X	X	
Sa. 2 :					X
<hr/>					
Ta. 6 :		X	X		
Ta. 8 :	X	X	X	X	X
<hr/>					
To. 1 :					
To. 2 :		X	X	X	
<hr/>					
Tu. 1 :	X	X	X	X	X
Tu. 4 :	X	X	X	X	X
<hr/>					

E RUTU I TE PAU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :           X           X

Ma. 3 :

Mq. 1 :

Mq. 2 :           X           X

Ra. 1 :           X           X

Ra. 2 :           X           X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :           X           X

To. 1 :

To. 2 :

Tu. 1 :           X           X

Tu. 4 :           X           X

ME OTI TE VAKA O TANAROA. I TE MONITĒ IMUA

Ha. 1 :

Ha. 2 :

Ha. 5 : X

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X X

Ra. 1 : X X X X

Ra. 2 : X X X X

Ra. 3 :

Sa. 1 : X

Sa. 2 :

Ta. 6 : X X X

Ta. 8 : X X X

To. 1 :

To. 2 : X X

Tu. 1 : X X X X

Tu. 4 : X X

Ra. 17  
(cont.)'AERE 'AIA TAUTAI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :           X       X       X

Mq. 1 :

Mq. 2 :           X                   X

Ra. 1 :           X       X       X

Ra. 2 :           X       X       X

Ra. 3 :

Sa. 1 :

Sa. 2 :                                   X

Ta. 6 :           X                   X

Ta. 8 :           X                   X

To. 1 :

To. 2 :           X                   X

Tu. 1 :           X                   X

Tu. 4 :           X                   X



'AERE AU I ROTO I TŌKU VAKA MEGITI KI TERĀ.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X X

Ma. 2 : X X X X X

Ma. 3 : X X X X X

Mq. 1 :

Mq. 2 : X X X X X

Ra. 1 : X X X X X X X

Ra. 2 : X X X X X X X

Ra. 3 :

Sa. 1 :

Sa. 2 : X X

Ta. 6 : X X X X X

Ta. 8 : X X X X X

To. 1 :

To. 2 : X

Tu. 1 : X X X X X

Tu. 4 : X X X X X

Ra. 19  
(cont.)'ENUA MEGITI TIKI I TETA'I PUPU.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X

Ma. 3 : X

Mq. 1 :

Mq. 2 :

Ra. 1 : X X X X

Ra. 2 : X X X X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 : X

Ta. 8 : X X

To. 1 :

To. 2 :

Tu. 1 : X X X

Tu. 4 : X X X



## TE 'ENUA I TE PAE KARE E RAUKA I TE 'AERE. MAMAO ROA.

Ha. 1 :					X	X
Ha. 2 :					X	X
Ha. 5 :					X	X

---

Ma. 2 :	X		X	X		X	X	X
Ma. 3 :	X		X			X	X	X

---

Mq. 1 :								
Mq. 2 :	X		X				X	X

---

Ra. 1 :	X		X	X	X		X	X	X
Ra. 2 :	X		X	X	X		X	X	X
Ra. 3 :									

---

Sa. 1 :									X
Sa. 2 :									X

---

Ta. 6 :	X		X				X		
Ta. 8 :	X		X						

---

To. 1 :									
To. 2 :									

---

Tu. 1 :	X		X	X	X		X	X	X
Tu. 4 :	X		X	X	X		X	X	X

---

'O LO'O VALA'AU MAI I A'I MĀTOU E O ATU

Ha. 1 :	X	X	
Ha. 2 :		X	
Ha. 5 :		X	
<hr/>			
Ma. 2 :		X	X
Ma. 3 :		X	
<hr/>			
Mq. 1 :			
Mq. 2 :		X	
<hr/>			
Ra. 1 :			
Ra. 2 :		X	
Ra. 3 :		X	
<hr/>			
Sa. 1 :	X	X	X
Sa. 2 :	X	X	X
<hr/>			
Ta. 6 :		X	
Ta. 8 :		X	
<hr/>			
To. 1 :		X	X
To. 2 :	X	X	X
<hr/>			
Tu. 1 :		X	
Tu. 4 :			
<hr/>			

I LE 'AIGA E MOMOE.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 : X

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X X

---

Ta. 6 :

Ta. 8 :

---

To. 1 : X

To. 2 : X

---

Tu. 1 :

Tu. 4 : X

IA MĀTOU O ATU I LE FALE E MOMOE SE'I VAGANĀ

Ha. 1 :	X				
Ha. 2 :	X			X	
Ha. 5 :	X			X	
Ma. 2 :	X		X	X	
Ma. 3 :	X		X	X	
Mq. 1 :					
Mq. 2 :	X	X	X	X	
Ra. 1 :					
Ra. 2 :	X			X	
Ra. 3 :	X			X	
Sa. 1 :	X	X	X	X	
Sa. 2 :	X	X	X	X	X
Ta. 6 :	X		X		
Ta. 8 :			X	X	
To. 1 :	X	X	X	X	
To. 2 :	X	X		X	
Tu. 1 :			X	X	
Tu. 4 :	X				

Sa. 2  
(cont.)SE ISI ASO.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :                   X   X

Sa. 2 :                   X   X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :                   X   X

Tu. 1 :

Tu. 4 :



'ĀFAI MĀTOU TE NONOFO 'UMI I LE PŌ, MĀTOU

Ha. 1 :		X		X			
Ha. 2 :		X					
Ha. 5 :		X		X		X	X
<hr/>							
Ma. 2 :		X					
Ma. 3 :		X				X	
<hr/>							
Mq. 1 :							
Mq. 2 :		X				X	
<hr/>							
Ra. 1 :							
Ra. 2 :							
Ra. 3 :		X					
<hr/>							
Sa. 1 :	X	X	X	X		X	X
Sa. 2 :	X	X	X	X		X	X
<hr/>							
Ta. 6 :		X				X	
Ta. 8 :		X				X	
<hr/>							
To. 1 :		X				X	X
To. 2 :	X	X	X	X		X	X
<hr/>							
Tu. 1 :		X					
Tu. 4 :		X					
<hr/>							

TE FEFEFE E O I LE 'AIGA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 : X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X X X

Sa. 2 : X X X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 : X X X

Tu. 1 :

Tu. 4 :



'O ASO NEI UA LE TOE FEFE MĀTOU I LE PO

Ha. 1 :				X	X
Ha. 2 :				X	X
Ha. 5 :				X	X

---

Ma. 2 :				X	X
Ma. 3 :				X	X

---

Mq. 1 :					
Mq. 2 :				X	X

---

Ra. 1 :					
Ra. 2 :		X			X
Ra. 3 :				X	X

---

Sa. 1 :	X	X	X	X	X
Sa. 2 :	X	X	X	X	X

---

Ta. 6 :				X	X
Ta. 8 :				X	

---

To. 1 :				X	X
To. 2 :	X	X	X	X	X

---

Tu. 1 :				X	X
Tu. 4 :				X	X

---

E TE FIA NOFO I SE MOTU TELE?

Ha. 1 :                   X                   X

Ha. 2 :                   X                   X

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :       X           X           X       X

Sa. 2 :       X           X           X       X

Ta. 6 :

Ta. 8 :

To. 1 :                   X                   X

To. 2 :                   X                   X       X

Tu. 1 :

Tu. 4 :                                   X

SA NONOFO OU TUA'A I LENĀ MOTU?

Ha. 1 :	X				X
---------	---	--	--	--	---

Ha. 2 :	X				
---------	---	--	--	--	--

Ha. 5 :					X
---------	--	--	--	--	---

---

Ma. 2 :				X	X
---------	--	--	--	---	---

Ma. 3 :	X				X
---------	---	--	--	--	---

---

Mq. 1 :					
---------	--	--	--	--	--

Mq. 2 :	X				X
---------	---	--	--	--	---

---

Ra. 1 :					
---------	--	--	--	--	--

Ra. 2 :					
---------	--	--	--	--	--

Ra. 3 :					X
---------	--	--	--	--	---

---

Sa. 1 :	X	X	X	X	X
---------	---	---	---	---	---

Sa. 2 :	X	X	X	X	X
---------	---	---	---	---	---

---

Ta. 6 :	X			X	X
---------	---	--	--	---	---

Ta. 8 :					X
---------	--	--	--	--	---

---

To. 1 :					X
---------	--	--	--	--	---

To. 2 :	X		X	X	X
---------	---	--	---	---	---

---

Tu. 1 :					X
---------	--	--	--	--	---

Tu. 4 :					
---------	--	--	--	--	--

---

O AFEA E TE SAU I LO MĀTOU MOTU?

Ha. 1 :				X	X
---------	--	--	--	---	---

Ha. 2 :				X	
---------	--	--	--	---	--

Ha. 5 :				X	
---------	--	--	--	---	--

---

Ma. 2 :				X	X
---------	--	--	--	---	---

Ma. 3 :			X	X	
---------	--	--	---	---	--

---

Mq. 1 :					
---------	--	--	--	--	--

Mq. 2 :	X		X	X	
---------	---	--	---	---	--

---

Ra. 1 :					
---------	--	--	--	--	--

Ra. 2 :	X				
---------	---	--	--	--	--

Ra. 3 :	X				
---------	---	--	--	--	--

---

Sa. 1 :	X	X	X	X	X
---------	---	---	---	---	---

Sa. 2 :	X	X	X	X	
---------	---	---	---	---	--

---

Ta. 6 :	X		X	X	X
---------	---	--	---	---	---

Ta. 8 :					
---------	--	--	--	--	--

---

To. 1 :			X		
---------	--	--	---	--	--

To. 2 :	X	X	X	X	X
---------	---	---	---	---	---

---

Tu. 1 :	X				
---------	---	--	--	--	--

Tu. 4 :	X			X	
---------	---	--	--	---	--

---

UA MANA'O LA'U UŌ E TE SAU I LO'U FALE.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

---

Ma. 2 : X

Ma. 3 : X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

---

Sa. 1 : X X X X X X X

Sa. 2 : X X X X X X X

---

Ta. 6 : X X

Ta. 8 :

---

To. 1 : X X

To. 2 : X X X X X X

---

Tu. 1 : X

Tu. 4 : X

---

'ĀFAI E TE ASIASI IA TE A'U. TĀTOU TE MOMOE I

Ha. 1 :					X	
Ha. 2 :					X	X
Ha. 5 :					X	X
Ma. 2 :					X	X
Ma. 3 :						X
Mq. 1 :						
Mq. 2 :					X	X
Ra. 1 :						
Ra. 2 :						
Ra. 3 :					X	X
Sa. 1 :	X	X	X	X	X	X
Sa. 2 :	X	X	X	X	X	X
Ta. 6 :						
Ta. 8 :					X	X
To. 1 :						X
To. 2 :	X	X	X	X	X	X
Tu. 1 :						
Tu. 4 :					X	X

10'U FALÉ.

Ha. 1 :

Ha. 2 :           X

Ha. 5 :        X

Ma. 2 :       X    X

Ma. 3 :       X    X

Mq. 1 :

Mq. 2 :       X    X

Ra. 1 :

Ra. 2 :       X    X

Ra. 3 :       X    X

Sa. 1 :       X    X

Sa. 2 :       X    X

Ta. 6 :       X    X

Ta. 8 :       X    X

To. 1 :       X

To. 2 :       X    X

Tu. 1 :       X    X

Tu. 4 :            X

TĀTOU TE 'AI AI 'I'INĀ.

Ha. 1 : X X

Ha. 2 : X X

Ha. 5 : X X

Ma. 2 : X X

Ma. 3 : X

Mq. 1 :

Mq. 2 : X X

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

Sa. 1 : X X X

Sa. 2 : X X X

Ta. 6 : X

Ta. 8 : X X

To. 1 : X

To. 2 : X X X

Tu. 1 : X

Tu. 4 : X X



'O LENĀ FALE E ITLITI I LO LENEI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

 Ma. 2 :           X

 Ma. 3 :           X
 

---

Mq. 1 :

 Mq. 2 :           X
 

---

Ra. 1 :

Ra. 2 :       X       X

 Ra. 3 :           X
 

---

Sa. 1 :       X       X       X       X

 Sa. 2 :       X       X       X       X
 

---

Ta. 6 :           X

 Ta. 8 :           X
 

---

To. 1 :       X       X

 To. 2 :       X       X       X       X
 

---

Tu. 1 :

 Tu. 4 :       X       X
 

---

SA FANINA LENĀ FALE E UŌ A LO'U USO.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 : X

Mq. 1 :

Mq. 2 : X

Ra. 1 :

Ra. 2 : X X

Ra. 3 : X

Sa. 1 : X X X X X X

Sa. 2 : X X X X X X

Ta. 6 : X

Ta. 8 : X

To. 1 : X

To. 2 : X X X X X X

Tu. 1 :

Tu. 4 : X

'ĀFAI TĀTOU TE TAUNU'U IAI O LA A FAI SA TĀTOU

Ha. 1 :		X				X
Ha. 2 :		X				
Ha. 5 :		X				X
Ma. 2 :		X				
Ma. 3 :		X				X
Mq. 1 :						
Mq. 2 :		X				
Ra. 1 :						
Ra. 2 :		X				
Ra. 3 :						
Sa. 1 :	X	X	X	X	X	X
Sa. 2 :	X	X	X	X	X	X
Ta. 6 :		X				
Ta. 8 :		X				
To. 1 :		X				X
To. 2 :	X	X	X	X	X	X
Tu. 1 :						
Tu. 4 :		X				

'AIGA TELE.

Ha. 1 :

Ha. 2 :       X

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :       X     X

Sa. 2 :       X     X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :       X     X

Tu. 1 :

Tu. 4 :

'O LE TAUSAGA 'UA MAVAE SA TELE A MATOU PUA'A I LE 'AIGA.

Ha. 1 :				X	
Ha. 2 :				X	
Ha. 5 :				X	X
<hr/>					
Ma. 2 :				X	
Ma. 3 :					
<hr/>					
Mq. 1 :					
Mq. 2 :				X	
<hr/>					
Ra. 1 :					
Ra. 2 :					
Ra. 3 :				X	
<hr/>					
Sa. 1 :	X	X	X	X	X
Sa. 2 :	X	X	X	X	X
<hr/>					
Ta. 6 :				X	
Ta. 8 :					
<hr/>					
To. 1 :					
To. 2 :	X	X	X	X	X
<hr/>					
Tu. 1 :					
Tu. 4 :				X	
<hr/>					

O LE A FA I E A 'U LE UMU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 : X

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X X X

Sa. 2 : X X X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 : X X X

Tu. 1 :

Tu. 4 :

'AFAI TOU TE 'AU MAI NI I'A MĀTOU TE 'AI AI.

Ha. 1 :				X	X	
Ha. 2 :				X	X	
Ha. 5 :			X	X	X	
Ma. 2 :						
Ma. 3 :						
Mq. 1 :						
Mq. 2 :				X		
Ra. 1 :				X		
Ra. 2 :						
Ra. 3 :				X		
Sa. 1 :	X	X	X	X	X	
Sa. 2 :	X	X	X	X	X	X
Ta. 6 :				X		
Ta. 8 :				X		
To. 1 :						
To. 2 :			X	X	X	X
Tu. 1 :						
Tu. 4 :				X		

O LEA LE SIVA A FAI TATOU O ?

Ha. 1 :

Ha. 2 :

Ha. 5 : X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X X X X X

Sa. 2 : X X X X

---

Ta. 6 :

Ta. 8 :

---

To. 1 : X X

To. 2 : X X X

---

Tu. 1 :

Tu. 4 :

---



'O AI E 'AU MAI A MEA ALOFA?

Ha. 1 :		X		X
---------	--	---	--	---

Ha. 2 :				X
---------	--	--	--	---

Ha. 5 :				X
---------	--	--	--	---

---

Ma. 2 :	X			X
---------	---	--	--	---

Ma. 3 :	X			X
---------	---	--	--	---

---

Mq. 1 :				
---------	--	--	--	--

Mq. 2 :				
---------	--	--	--	--

---

Ra. 1 :				
---------	--	--	--	--

Ra. 2 :	X	X		X
---------	---	---	--	---

Ra. 3 :				X
---------	--	--	--	---

---

Sa. 1 :	X	X	X	X
---------	---	---	---	---

Sa. 2 :	X	X	X	X
---------	---	---	---	---

---

Ta. 6 :	X			X
---------	---	--	--	---

Ta. 8 :				X
---------	--	--	--	---

---

To. 1 :		X	X	X
---------	--	---	---	---

To. 2 :	X	X	X	X
---------	---	---	---	---

---

Tu. 1 :				
---------	--	--	--	--

Tu. 4 :	X			X
---------	---	--	--	---

---

IĀ FANAU NA'E HO'E VAHINE. E HINA'ARO TĀTOU

Ha. 1 :	X		X		
Ha. 2 :	X		X		X
Ha. 5 :					X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :	X		X		X	X
---------	---	--	---	--	---	---

Ra. 3 :

---

Sa. 1 :	X		X			X
---------	---	--	---	--	--	---

Sa. 2 :	X		X			X
---------	---	--	---	--	--	---

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :	X		X		
---------	---	--	---	--	--

---

Tu. 1 :

Tu. 4 :

---

PAUROA E HI'O I TE A 'AIŪ.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

E TAMATA TĀTOU I TE TAUTURU MAI TE MEA E

Ha. 1 : X  
 Ha. 2 : X  
 Ha. 5 : X

---

Ma. 2 :  
 Ma. 3 :

---

Mq. 1 :  
 Mq. 2 :

---

Ra. 1 :  
 Ra. 2 : X X X  
 Ra. 3 :

---

Sa. 1 : X  
 Sa. 2 : X

---

Ta. 6 :  
 Ta. 8 :

---

To. 1 :  
 To. 2 : X

---

Tu. 1 :  
 Tu. 4 :

---

NEHENEHE MAI TE 'AFA'I ATU I TE MA'A E TE 'O.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

X

X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :Tu. 4 ;  

---

E HA'APA 'O TE MAU TŪPUNA I TE 'AIŪ. NO TE MEA

Ha. 1 :		X			X
Ha. 2 :		X			
Ha. 5 :		X			X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :	X		X		X	X
---------	---	--	---	--	---	---

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

E 'OHIPA TA TE METUA TANE E TE METUA VAHINE.

Ha. 1 :	X	X
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X	X	X
---------	---	---	---

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

MEA AU NA RĀTOU E NA REIRA.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 :



IĀ ROHIRGI NA'E RĀTOU E RIRI RĀTOU.

Ha. 1 :		X	X	X
Ha. 2 :		X	X	X
Ha. 5 :		X	X	X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :	X		X	X	X
---------	---	--	---	---	---

Ra. 3 :

---

Sa. 1 :

		X	X	X
--	--	---	---	---

Sa. 2 :

		X		X
--	--	---	--	---

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :		X		
---------	--	---	--	--

---

Tu. 1 :

Tu. 4 :

---

MEA 'OA'OA TE MAU TAMARI'I NO TE MEA E

Ha. 1 :	X		
Ha. 2 :	X		X
Ha. 5 :	X		X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X		X		X
---------	---	--	---	--	---

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

FA'ATI'A NOA HIA TO RĀTOU MAU MANA'O.

Ha. 1 :	X	X
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X	X	X
---------	---	---	---

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

'AITA I RAHI TA RĀTOU 'OHIPA. E HA'UTI NOA

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X X X

Ra. 3 :

Sa. 1 : X

Sa. 2 : X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

RĀTOU I TE RAHIRA'A O TE TAIME.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

Sa. 1 :

Sa. 2 : X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

E HA'API'I TE MAU TAMARI'I I TE FA'ATI'A 'A'AMU

Ha. 1 : X  
 Ha. 2 : X  
 Ha. 5 : X

---

Ma. 2 :  
 Ma. 3 :

---

Mq. 1 :  
 Mq. 2 :

---

Ra. 1 :  
 Ra. 2 : X X X X  
 Ra. 3 :

---

Sa. 1 : X  
 Sa. 2 :

---

Ta. 6 :  
 Ta. 8 :

---

To. 1 :  
 To. 2 : X

---

Tu. 1 :  
 Tu. 4 :

---

NA NI'A I TE FA'ARO'6 RA'A I TE PARAU

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

A TE MAU TA'ATA PA'ARI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :                   X           X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---



TE HA'API'I NEI RĀTOU I TE PARAU O TE MAU MOTU

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 : X X X X

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

TĀPIRI MAI E TE HINA'ARO NEI RĀTOU E MĀTA'ITA'I

Ha. 1 :	X	X
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

X	X	X	X
---	---	---	---

Ra. 2 :

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

IĀ TAE TO RĀTOU PA'ARĀRA'A.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

E IHU PARAHURAHU TO TEIE POTI'I.

Ha. 1 :

Ha. 2 :       X           X           X

Ha. 5 :       X           X           X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :       X                   X       X

Ra. 3 :

Sa. 1 :       X

Sa. 2 :       X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

TE 'ITE NEI RĀTOU E 'E'ERE HO'E 'AHURU

Ha. 1 :           X           X

Ha. 2 :           X           X

Ha. 5 :           X           X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :           X           X           X           X

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

TO TE MAU TA'ATA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

E VAHA RAHI TO TEIE TAMAROA.

Ha. 1 :	X			
Ha. 2 :			X	X
Ha. 5 :	X		X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X	X	X	X
---------	---	---	---	---

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

TE TAMAROA 'AVAE PI 'AOAO TE NEHENEHE

Ha. 1 :

Ha. 2 :           X

Ha. 5 :           X           X                           X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :           X           X           X           X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :   X

---

Tu. 1 :

Tu. 4 :

---



E HORO 'OI'OI.

Ha. 1 :

Ha. 2 :

Ha. 5 :        x

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :        x        x

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :        x

Tu. 1 :

Tu. 4 :

MEA ROROA TE ROURU O TETAHI MAU VAHINE.

Ha. 1 :			X	X
Ha. 2 :	X			X
Ha. 5 :	X	X	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X	X	X	X
---------	---	---	---	---

Ra. 3 :

Sa. 1 :		X		X
---------	--	---	--	---

Sa. 2 :				X
---------	--	--	--	---

---

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :	X	X		X
---------	---	---	--	---

---

Tu. 1 :

Tu. 4 :

TE RAHI RA'A RA MEA POTOPOTO IA.

Ha. 1 :		X
Ha. 2 :		X
Ha. 5 :		X

---

Ma. 2 :		
Ma. 3 :		

---

Mq. 1 :		
Mq. 2 :		

---

Ra. 1 :		
Ra. 2 :	X	X
Ra. 3 :		

---

Sa. 1 :		
Sa. 2 :		

---

Ta. 6 :		
Ta. 8 :		

---

To. 1 :		
To. 2 :		

---

Tu. 1 :		
Tu. 4 :		

---

TE RAHI RA'A O TE TAMARI'I 'AITA E 'O'OMO

Ha. 1 : X  
 Ha. 2 : X  
 Ha. 5 : X

---

Ma. 2 :  
 Ma. 3 :

---

Mq. 1 :  
 Mq. 2 :

---

Ra. 1 :  
 Ra. 2 : X X X X  
 Ra. 3 :

---

Sa. 1 : X  
 Sa. 2 :

---

Ta. 6 :  
 Ta. 8 :

---

To. 1 :  
 To. 2 : X

---

Tu. 1 :  
 Tu. 4 :

---

I TE TIA'A.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :           X

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :

---

MEA NEHENEHE TE MATA O TERĀ MAU TAMAHINE.

Ha. 1 :	X	X	X
Ha. 2 :	X	X	X
Ha. 5 :	X	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X	X	X	X
---------	---	---	---	---

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

X

Tu. 1 :

Tu. 4 :

MEA ROA TE 'Ā'Ī O TETAHI MAU TAMAROA.

Ha. 1 :	X	X		X
Ha. 2 :	X	X	X	X
Ha. 5 :	X	X	X	X

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :	X	X	X	X
---------	---	---	---	---

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :	X
---------	---

---

Tu. 1 :

Tu. 4 :

---

TE RAHI RA'A O TE MAU TANE MEA 'AFARO

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X X

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 :



TO RĀTOU MAU TUA.

Ha. 1 :	X	
Ha. 2 :	X	X
Ha. 5 :	X	X

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X

Ra. 3 :

Sa. 1 :

Sa. 2 : X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

MEA PORIA HO'I TE TINO O TETAHI MAU TA'ATA.

Ha. 1 :	X	X		
Ha. 2 :	X	X		
Ha. 5 :	X	X	X	

---

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :	X	X	X	X
---------	---	---	---	---

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

X

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

MEA PARARAI HO'I TO TETAHI MAU PU'ERA'A.

Ha. 1 :

Ha. 2 :

Ha. 5 : X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

TE TOPA NEI TE NIHO O TE RAHIRA'A O TE

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 : X X X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

TA 'ATA RU 'AU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :        X        X

Ra. 3 :

Sa. 1 :

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :

'OKU AU FIEFIA MO HOKU FAGA TEHINA. NOE'UHI KO HONO

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :           X

Sa. 2 :           X

Ta. 6 :

Ta. 8 :        X

To. 1 :

To. 2 :        X    X            X            X            X

Tu. 1 :

Tu. 4 :

FAFAGA LELEI 'I MAUTOLU 'EHE 'E MAU MATU'A.

Ha. 1 :				X
Ha. 2 :				X
Ha. 5 :				
<hr/>				
Ma. 2 :				
Ma. 3 :		X		X
<hr/>				
Mq. 1 :				
Mq. 2 :		X		
<hr/>				
Ra. 1 :				
Ra. 2 :		X		
Ra. 3 :				
<hr/>				
Sa. 1 :	X	X		X
Sa. 2 :	X	X		
<hr/>				
Ta. 6 :				
Ta. 8 :				
<hr/>				
To. 1 :				
To. 2 :	X	X	X	X
<hr/>				
Tu. 1 :			X	
Tu. 4 :			X	
<hr/>				

'OKU LAHI 'AE ME'A KAI KEHEKEHE KE VAOTĀ.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

X

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

X

X

X

X

Tu. 1 :

Tu. 4 :



TEKE MA'U AI 'AE MEI EIAIHE HO E PAOGO.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X X

X

X

X

---

Tu. 1 :

Tu. 4 :

---

'OKU IFO 'AE NIU PEA KA'E GAUE LAHI 'AE KAU FEFISE

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

X

Sa. 2 :

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

X

X

X

X

---

Tu. 1 :

Tu. 4 :

---

HE TEUTEU 'A KE'A TOKONI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :           X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :           X    X           X

Tu. 1 :

Tu. 4 :

'OKU 'IKAI KE MAU SA'IA AI, KA KO HAI TE NE FAI 'AI GAUE'

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

X

X

X

X

X

X

---

Tu. 1 :

Tu. 4 :

---

NA'E UTU 'AE TALO 'EHE SIANA HE 'OKU MAMA'O MEI 'API.

Ha. 1 :

Ha. 2 :

Ha. 5 :

X

---

Ma. 2 :

X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

X

X

X

X

---

Tu. 1 :

Tu. 4 :

---

NA 'E FE'UGA PE 'ENAU TALO HE UIKE KURO 'OSI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

X

X

X

---

Tu. 1 :

Tu. 4 :

---

KO E TALO MO E MEI NA'E TUNU 'EHE FINEMATU'A.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

---

Ma. 2 :

X

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

X

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

X

X

X

---

Tu. 1 :

X

X

Tu. 4 :

X

---

LOLOTOGA 'ENAU GĀUE 'OKU IFO 'ENAU TALANOA MO E TAMAIKI

Ha. 1 :								X
Ha. 2 :								
Ha. 5 :								X
<hr/>								
Ma. 2 :								
Ma. 3 :								X
<hr/>								
Mq. 1 :								
Mq. 2 :								
<hr/>								
Ra. 1 :								
Ra. 2 :								X
Ra. 3 :								
<hr/>								
Sa. 1 :		X						X
Sa. 2 :						X		X
<hr/>								
Ta. 6 :								
Ta. 8 :								X
<hr/>								
To. 1 :								
To. 2 :	X	X	X	X	X	X	X	X
<hr/>								
Tu. 1 :								X
Tu. 4 :								X
<hr/>								



'OKU FA'A TŌ 'AE ME'A KAI HE EFU PEA FUFULU 'AKI 'AE

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X X

X

X X

X

---

Tu. 1 :

Tu. 4 :

---

VAI KE 'OUA 'E 'ULI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 : X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 : X X X

Tu. 1 :

Tu. 4 :

NA 'A MAU NOFO FALE 'ANEAFI HE TO 'AE 'UHA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 : X

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

Sa. 1 : X

Sa. 2 : X X

---

Ta. 6 :

Ta. 8 : X

---

To. 1 :

To. 2 : X X X X X

---

Tu. 1 : X

Tu. 4 : X

---

KAI FO'I 'AKAU PĒ KOE'UHI 'OKU 'IKAI FAKAHELA HANO HAKA

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 : X

Ma. 3 :

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 : X            X            X            X            X            X            X

---

Tu. 1 :

Tu. 4 :

---

NA'E FEHU'I MAI 'EHE 'EKU FA'E PE MA'U 'ANE FE 'AE SIAIE.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :        X                                X        X

---

To. 1 :

To. 2 :    X        X

---

Tu. 1 :

Tu. 4 :

---

NA 'U TALA KIHE TA 'AHINE NA 'U MA 'U HE TAU MAI 'AE VAKA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 : X X

Ma. 3 :

---

Mq. 1 :
Mq. 2 : X X X X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 : X

Sa. 2 :

---

Ta. 6 : X X

Ta. 8 : X

---

To. 1 :

To. 2 : X X X X X X X

---

Tu. 1 : X X

Tu. 4 : X

---

'OKU 'IKAI FE'UGA 'ALU MU'A 'O KUMI MAI HA ME'A.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :           X       X       X                   X               X

---

Tu. 1 :

Tu. 4 :

---

I HE HALA OFI KI 'API 'OKU 'IAI 'AE FU'U MEI 'E TOLU.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

X

Sa. 2 :

X

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :

X

X

X

X

X

X

X

---

Tu. 1 :

Tu. 4 :

---



LOLOTOGA 'ENE KEI MO'UI NA'A NE FA'A TUKI PE'E IA 'AE MEI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

Ma. 2 :

Ma. 3 :

Mq. 1 :

Mq. 2 :

Ra. 1 :

Ra. 2 :

Ra. 3 :

Sa. 1 :

X

Sa. 2 :

Ta. 6 :

Ta. 8 :

To. 1 :

To. 2 :

X

X

X

X

X

X

Tu. 1 :

Tu. 4 :

PEA NA'A NE FA'A GAAHI FAIKAKAI HE 'AHO KATOA PĒ.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :           X           X           X           X           X

---

Tu. 1 :

Tu. 4 :

---

NA'E MAHAKI 'IA IA PEA SI'I MATE.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 :

Ma. 3 :

---

Mq. 1 :

Mq. 2 :           X           X           X

---

Ra. 1 :

Ra. 2 :

Ra. 3 :

---

Sa. 1 :                                   X

Sa. 2 :

---

Ta. 6 :

Ta. 8 :

---

To. 1 :

To. 2 :           X           X           X           X

---

Tu. 1 :                                   X

Tu. 4 :

---

KUO GALO HONO HIGOA KA KOU MANATU'I KO E TAMA FAKAKATA.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

---

Ma. 2 :

Ma. 3 : X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 :

---

Sa. 1 : X X X

Sa. 2 : X X X

---

Ta. 6 :

Ta. 8 : X

---

To. 1 :

To. 2 : X X X X X X X X

---

Tu. 1 : X

Tu. 4 :

---

Tu. 1

NA VAI I RAVE TĀKU TIPI? TĀKU NOA IHO IA TIPI MAITA'I AKE.

Ha. 1 : X X X X X

Ha. 2 : X X X X X

Ha. 5 : X X X X X

Ma. 2 : X X X X X X X X X

Ma. 3 : X X X X X X X X X

Mq. 1 :

Mq. 2 : X X X X X X X X X

Ra. 1 :

Ra. 2 : X X X X X X X X X

Ra. 3 : X X X X X X X X X

Sa. 1 :

Sa. 2 :

Ta. 6 : X X X X X X X X X

Ta. 8 : X X X X X X X X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X X X X X X X X

UA PURU ROA 'ONA I TE HOU I MURI AKE I TANA RAVE HAGA

Ha. 1 :	X				
Ha. 2 :	X				
Ha. 5 :	X			X	X
Ma. 2 :	X	X	X	X	X
Ma. 3 :	X	X	X	X	X
Mq. 1 :					
Mq. 2 :	X	X	X	X	X
Ra. 1 :					
Ra. 2 :	X	X	X		X
Ra. 3 :	X	X	X	X	X
Sa. 1 :				X	
Sa. 2 :					
Ta. 6 :	X	X	X	X	X
Ta. 8 :	X	X	X	X	X
To. 1 :					
To. 2 :					
Tu. 1 :					
Tu. 4 :	X	X	X	X	X

'OHIPA.

Ha. 1 :

Ha. 2 :

Ha. 5 : X

---

Ma. 2 : X

Ma. 3 : X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 : X

Ta. 8 : X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 : X

UA NOHO VAU I TAHIKI IHO I TE 'IRI TAMA'AHAGA NO TE TAMA'A.

Ha. 1 : X X

Ha. 2 : X X

Ha. 5 : X X

---

Ma. 2 : X X X X X

Ma. 3 : X X X

---

Mq. 1 :

Mq. 2 : X X X X

---

Ra. 1 :

Ra. 2 : X X X

Ra. 3 : X X X X

---

Sa. 1 : X X

Sa. 2 : X X

---

Ta. 6 : X X X X

Ta. 8 : X X X X X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 : X X X X X

---



UA HORO HA 'AVITIVITI NOA 'ONA NO TONA MEHAMEHA.

Ha. 1 :		X		X	X	
Ha. 2 :	X	X			X	
Ha. 5 :	X	X			X	
<hr/>						
Ma. 2 :	X	X		X	X	X
Ma. 3 :	X	X		X	X	X
<hr/>						
Mq. 1 :						
Mq. 2 :	X	X		X	X	X
<hr/>						
Ra. 1 :						
Ra. 2 :	X	X		X	X	X
Ra. 3 :	X	X		X	X	X
<hr/>						
Sa. 1 :						
Sa. 2 :						
<hr/>						
Ta. 6 :	X	X		X	X	X
Ta. 8 :	X	X		X	X	X
<hr/>						
To. 1 :						
To. 2 :						
<hr/>						
Tu. 1 :						
Tu. 4 :	X	X		X	X	X
<hr/>						

UA FA'ATAUTAU 'ONA I TETAHI TAPUKATIGA I RUGA I TE KĀRAUHAGA.

Ha. 1 :

Ha. 2 :                   X   X

Ha. 5 :                   X                   X   X

---

Ma. 2 :                   X                   X                   X                   X

Ma. 3 :    X                   X                   X                   X                   X

---

Mq. 1 :

Mq. 2 :    X                   X                   X                   X                   X

---

Ra. 1 :

Ra. 2 :    X                   X                   X                   X                   X

Ra. 3 :    X

---

Sa. 1 :    X   X

Sa. 2 :    X   X

---

Ta. 6 :    X                   X                   X

Ta. 8 :    X                   X                   X   X

---

To. 1 :

To. 2 :    X   X

---

Tu. 1 :

Tu. 4 :    X                   X                   X                   X

---

E MEA TUPU OI'OI NOA TEIE HAGA MEI'A.

Ha. 1 :	X			X		X
---------	---	--	--	---	--	---

Ha. 2 :	X	X		X		X
---------	---	---	--	---	--	---

Ha. 5 :	X			X		X
---------	---	--	--	---	--	---

---

Ma. 2 :	X	X	X	X		X
---------	---	---	---	---	--	---

Ma. 3 :	X	X	X	X		X
---------	---	---	---	---	--	---

---

Mq. 1 :						
---------	--	--	--	--	--	--

Mq. 2 :	X	X	X	X		X
---------	---	---	---	---	--	---

---

Ra. 1 :						
---------	--	--	--	--	--	--

Ra. 2 :	X	X	X	X		X
---------	---	---	---	---	--	---

Ra. 3 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

---

Sa. 1 :	X					
---------	---	--	--	--	--	--

Sa. 2 :	X	X				
---------	---	---	--	--	--	--

---

Ta. 6 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

Ta. 8 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

---

To. 1 :						
---------	--	--	--	--	--	--

To. 2 :						
---------	--	--	--	--	--	--

---

Tu. 1 :						
---------	--	--	--	--	--	--

Tu. 4 :	X	X	X	X	X	X
---------	---	---	---	---	---	---

---

TEIE TA'OE I HOROGA MAI, TE HA'AMANA'O NEI AU.

Ha. 1 :	X			X	X
Ha. 2 :	X			X	X
Ha. 5 :	X			X	X

---

Ma. 2 :	X	X	X	X	X
Ma. 3 :	X	X	X	X	X

---

Mq. 1 :					
Mq. 2 :	X	X	X	X	X

---

Ra. 1 :					
Ra. 2 :	X	X	X		X
Ra. 3 :		X	X	X	X

---

Sa. 1 :					X
Sa. 2 :		X			

---

Ta. 6 :	X	X	X	X	X
Ta. 8 :	X	X	X	X	X

---

To. 1 :					
To. 2 :					X

---

Tu. 1 :					
Tu. 4 :	X	X	X	X	X

---

INĀHEA KOE I KAI AI?

Ha. 1 : X

Ha. 2 : X X

Ha. 5 :

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X X

Ra. 1 :

Ra. 2 : X X

Ra. 3 : X X X

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X X X

Ta. 8 : X X X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X X X

A INU FA'ARAHI NO TE MEA MEA AU.

Ha. 1 : X

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X X

Ma. 3 : X X X X

Mq. 1 :

Mq. 2 : X X X X

Ra. 1 :

Ra. 2 : X X X X

Ra. 3 : X X X X

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X X X X

Ta. 8 : X X X X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X X X X

'EHIA TA'OE I INU?

Ha. 1 :	X		
Ha. 2 :	X	X	X
Ha. 5 :	X	X	

---

Ma. 2 :	X	X	X
Ma. 3 :	X	X	X

---

Mq. 1 :			
Mq. 2 :	X	X	X

---

Ra. 1 :			
Ra. 2 :	X	X	X
Ra. 3 :	X	X	X

---

Sa. 1 :	X	X	
Sa. 2 :		X	X

---

Ta. 6 :	X	X	X
Ta. 8 :	X	X	X

---

To. 1 :			
---------	--	--	--

To. 2 :			
---------	--	--	--

---

Tu. 1 :			
---------	--	--	--

Tu. 4 :	X	X	X
---------	---	---	---

---

UA TA'OTO'OTOAHIA VAU I TEIE RUKI TA'ATO'A.

Ha. 1 :		X				
Ha. 2 :		X		X		
Ha. 5 :		X				
<hr/>						
Ma. 2 :	X	X	X	X	X	
Ma. 3 :	X	X	X	X	X	
<hr/>						
Mq. 1 :						
Mq. 2 :	X	X	X	X	X	
<hr/>						
Ra. 1 :						
Ra. 2 :	X	X	X	X	X	
Ra. 3 :	X	X		X	X	
<hr/>						
Sa. 1 :		X				X
Sa. 2 :		X				
<hr/>						
Ta. 6 :	X	X	X	X	X	
Ta. 8 :	X	X	X	X	X	
<hr/>						
To. 1 :						
To. 2 :						
<hr/>						
Tu. 1 :						
Tu. 4 :	X	X	X	X	X	
<hr/>						



UA KATU 'ONA I RUGA I TE TUREI HAKARI IĀ ROAKA MAI

Ha. 1 : X

Ha. 2 :

Ha. 5 :

Ma. 2 : X X X X X X

Ma. 3 : X X X X X X

Mq. 1 :

Mq. 2 : X X X X X X

Ra. 1 :

Ra. 2 : X X X X X X

Ra. 3 : X X X X X X

Sa. 1 : X

Sa. 2 : X

Ta. 6 : X X

Ta. 8 : X X X X X X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X X X X X X

TE GORA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Ma. 2 : X

Ma. 3 : X

---

Mq. 1 :

Mq. 2 : X

---

Ra. 1 :

Ra. 2 : X

Ra. 3 : X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :

Ta. 8 : X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 : X

NAVAI I HARU TEIE PARU? 'E'ERE IA I TA'OE.

Ha. 1 :	X		X				
Ha. 2 :	X		X				X
Ha. 5 :	X		X				X
Ma. 2 :	X	X	X	X	X	X	X
Ma. 3 :	X	X	X	X	X	X	X
Mq. 1 :							
Mq. 2 :	X	X	X		X	X	X
Ra. 1 :							
Ra. 2 :	X	X	X	X	X	X	X
Ra. 3 :	X		X		X	X	X
Sa. 1 :							
Sa. 2 :						X	
Ta. 6 :	X	X	X		X		
Ta. 8 :	X	X	X	X	X	X	X
To. 1 :							
To. 2 :							
Tu. 1 :							
Tu. 4 :	X	X	X	X	X	X	X

UA POI MAI 'ONA I TO'OE HAGA KAHU 'AORE RA 'ONA I

Ha. 1 :				X		X
Ha. 2 :				X		X
Ha. 5 :			X		X	
Ma. 2 :	X	X		X	X	
Ma. 3 :	X	X	X	X	X	X
Mq. 1 :						
Mq. 2 :	X	X	X	X	X	X
Ra. 1 :						
Ra. 2 :	X	X		X	X	X
Ra. 3 :	X				X	X
Sa. 1 :			X			
Sa. 2 :						
Ta. 6 :		X	X	X		X
Ta. 8 :	X	X	X	X	X	X
To. 1 :						
To. 2 :						
Tu. 1 :						
Tu. 4 :	X	X		X	X	X

Tu 14  
(Cont.)FAKAKITE MAI E NOHEA RA TE ROAKA HAGA MAI.

Ha. 1 :

Ha. 2 :                   X                   X

Ha. 5 :

---

Ma. 2 :   X                   X                   X

Ma. 3 :   X                   X                   X

---

Mq. 1 :

Mq. 2 :   X                   X                   X

---

Ra. 1 :

Ra. 2 :   X                   X                   X

Ra. 3 :   X                   X                   X

---

Sa. 1 :

Sa. 2 :

---

Ta. 6 :   X                   X                   X

Ta. 8 :   X                   X                   X

---

To. 1 :

To. 2 :

---

Tu. 1 :

Tu. 4 :   X                   X                   X

O TERA IA TE HAGA VAHINE TAKU I REKO ATU.

Ha. 1 :	X		X		
Ha. 2 :	X		X		
Ha. 5 :	X	X	X		
<hr/>					
Ma. 2 :	X	X	X	X	X
Ma. 3 :	X	X	X	X	X
<hr/>					
Mq. 1 :					
Mq. 2 :	X	X	X	X	X
<hr/>					
Ra. 1 :					
Ra. 2 :	X	X	X	X	X
Ra. 3 :	X	X	X	X	X
<hr/>					
Sa. 1 :			X		
Sa. 2 :		X	X		
<hr/>					
Ta. 6 :	X	X	X	X	X
Ta. 8 :	X	X	X	X	X
<hr/>					
To. 1 :					
To. 2 :			X		
<hr/>					
Tu. 1 :					
Tu. 4 :	X	X	X	X	X
<hr/>					

Tu. 16

NANA IHO IA E RAVE.

Ha. 1 : X X

Ha. 2 : X X X

Ha. 5 : X X X

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X X

Ra. 1 :

Ra. 2 : X X X

Ra. 3 : X X X

Sa. 1 :

Sa. 2 :

Ta. 6 : X X X

Ta. 8 : X X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X X

Tu. 17

'O TEIE IA TAKU HURU E AU.

Ha. 1 : X

Ha. 2 : X X

Ha. 5 : X

Ma. 2 : X X X X X

Ma. 3 : X X X X

Mq. 1 :

Mq. 2 : X X X X X

Ra. 1 :

Ra. 2 : X X X X X

Ra. 3 : X X X X X

Sa. 1 :

Sa. 2 : X

Ta. 6 : X X X X X

Ta. 8 : X X X X X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X X X X X



NA VAI TEIE HAVERE? NŌKU? 'AORE. NO'OE IA.

Ha. 1 :	X			X	X		
Ha. 2 :	X	X			X		X
Ha. 5 :	X	X			X		X
<hr/>							
Ma. 2 :	X	X	X	X	X		X
Ma. 3 :	X	X	X	X	X	X	X
<hr/>							
Mq. 1 :							
Mq. 2 :	X	X	X	X	X	X	X
<hr/>							
Ra. 1 :							
Ra. 2 :	X	X	X	X	X	X	X
Ra. 3 :	X	X		X		X	X
<hr/>							
Sa. 1 :	X	X					
Sa. 2 :	X	X					X
<hr/>							
Ta. 6 :	X	X		X	X	X	X
Ta. 8 :	X	X	X	X	X	X	
<hr/>							
To. 1 :							
To. 2 :							
<hr/>							
Tu. 1 :							
Tu. 4 :	X	X	X	X	X	X	X
<hr/>							

'O TEIE IA TŌKU.

Ha. 1 : X X

Ha. 2 : X

Ha. 5 : X

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X X

Ra. 1 :

Ra. 2 : X X X

Ra. 3 : X X X

Sa. 1 :

Sa. 2 : X

Ta. 6 : X X X

Ta. 8 : X X X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 : X X X

'E'ERE HOKI 'ONA I TE MEA KITE ROA ATU IANA.

Ha. 1 :

Ha. 2 :                   X           X   X

Ha. 5 :

Ma. 2 :       X           X           X   X           X

Ma. 3 :       X           X           X   X           X

Mq. 1 :

Mq. 2 :       X           X           X   X           X

Ra. 1 :

Ra. 2 :       X           X           X   X

Ra. 3 :       X           X           X   X           X

Sa. 1 :                   X

Sa. 2 :                           X

Ta. 6 :       X           X           X   X           X

Ta. 8 :       X           X           X   X           X

To. 1 :

To. 2 :

Tu. 1 :

Tu. 4 :       X                   X   X           X

'ONA IA TE REVA ATU.

Ha. 1 :

Ha. 2 : X X X

Ha. 5 :

Ma. 2 : X X X

Ma. 3 : X X X

Mq. 1 :

Mq. 2 : X X X

Ra. 1 :

Ra. 2 : X X X

Ra. 3 : X X X

Sa. 1 :

Sa. 2 :

Ta. 6 : X X X

Ta. 8 : X X X

To. 1 :

To. 2 : X

Tu. 1 :

Tu. 4 : X X X

HOKI FANAU TE FAFINE PEA TOU FIAFIA 'O SIO KI TE TAMASI'I.

Ha. 1 :

Ha. 2 :

X X

Ha. 5 :

---

Sa. 1 :

X X X X X

Sa. 2 :

X X

---

To. 2 :

X X X X X

---



MO'O OFA KI TE KAIGA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 : X

---

E TAUPAU TE 'U KUI KI TE TAMALIKI, KO TE 'UHI E

Ha. 1 :		X	
Ha. 2 :			
Ha. 5 :			
<hr/>			
Sa. 1 :		X	
Sa. 2 :		X	
<hr/>			
To. 2 :		X	X
<hr/>			



GAUE TANA 'U MATU'A.

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

X

---

Sa. 1 :

X

Sa. 2 :

---

To. 2 :

X

X

X

---

E NĀTOU LELEI IA KE FEIA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :	X	X
---------	---	---

Sa. 2 :

---

To. 2 :	X	X
---------	---	---

---

KAPAU E VAIVAI E 'ITA'ITA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :		X	
---------	--	---	--

Sa. 2 :		X	
---------	--	---	--

---

To. 2 :	X	X	X
---------	---	---	---

---

E FIAFIA TE KAU TAMALIKI, KOTE'UHI E NĀTOU FIA FAITALIA.

Ha. 1 : X

Ha. 2 : X

Ha. 5 :

---

 Sa. 1 : X X X X

Sa. 2 : X X

---

 To. 2 : X X X X X
 

---

MOLE LAHI TA NATOU GAUE. E GAO'I NOA NĀTOU I TE

Ha. 1 :

Ha. 2 :                      X                                      X

Ha. 5 :    X

---

Sa. 1 :    X                                      X

Sa. 2 :    X

---

To. 2 :              X              X              X                                      X

---

LAKAGA FULI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :

Sa. 2 :

---

To. 2 :

---

E 'ILO'I E NATOU E MOLE TATAU TE HANA'I.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

---

Sa. 1 : X X

Sa. 2 : X

---

To. 2 : X X

---

E IHU MENE TE KI 'I TA 'AHINE.

Ha. 1 :

Ha. 2 :

Ha. 5 : X

---

 Sa. 1 : X

Sa. 2 : X

---

 To. 2 : X X X
 

---



E GUTU LAHI TE KI'I TAMA.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 :	X	X	X
---------	---	---	---

Sa. 2 :			X
---------	--	--	---

---

To. 2 :	X	X	X
---------	---	---	---

---

KO TE TAMA E VA'E LOLOA E TAFUSI VAVE.

Ha. 1 :

Ha. 2 : X

Ha. 5 : X

---

Sa. 1 : X

Sa. 2 : X X X

---

To. 2 : X X X X X

---

E TOKOSI'I TE 'U TA'AHINE E LAU'ULU LOLOA, KA E

Ha. 1 :

Ha. 2 :

X

Ha. 5 :

X

Sa. 1 :

X

Sa. 2 :

X

X

X

To. 2 :

X

X

X

X



E TOKOLAHI TE TAMALIKE E MOLE FAI TAKA.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 : X X

---

E MATA LELEI TE 'U TA'AHINE.

Ha. 1 :

Ha. 2 :     X

Ha. 5 :

---

 Sa. 1 :     X     X                     X

 Sa. 2 :     X     X                     X
 

---

 To. 2 :     X     X                     X
 

---

E KIA LOA TE TAMA.

Ha. 1 :

Ha. 2 :           X           X

Ha. 5 :           X           X

Sa. 1 :                           X

Sa. 2 :                           X

To. 2 :       X    X           X

E NĀTOU MĀHĀLO NE'E INĀ FĀI, KĀ KI AU MOLE KOIA.

Ha. 1 :

Ha. 2 : X

Ha. 5 :

---

Sa. 1 : X X

Sa. 2 : X X X

---

To. 2 : X X X

---



'AUA NA 'A KE KAPA KIAI.

Ha. 1 :

Ha. 2 :

Ha. 5 :

---

Sa. 1 : X

Sa. 2 : X

---

To. 2 : X                    X    X

NE'E AU LOGO'I NI'IHI LAKAGA.

Ha. 1 :

Ha. 2 :

Ha. 5 :           x

---

Sa. 1 :           x

Sa. 2 :

---

To. 2 :                           x



HOKI AU PALALAU LEVA KIAI.

Ha. 1 : X

Ha. 2 :

Ha. 5 : X

---

Sa. 1 :

Sa. 2 :

---

To. 2 : X X X

APPENDIX D  
BASIC VOCABULARY TALLY SHEETS

This appendix consists of tally sheets based on the transcribed translations of the informants when listening to the recorded test material. The test items are arranged at the top of each page and the performance is recorded below and opposite the symbol for the informant or informant group. The symbol X represents a correct response to the test items. Incorrect responses or no responses are not indicated here.

EASTER  
ISLAND

	1	2	3	4	5	6	7	8	9	10
Ha. 1 :					X	X				X
Ha. 2 :		X			X	X			X	X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X			X	X			X	
Ma. 1 :	X	X		X	X	X			X	X
Ma. 2 :	X	X		X	X	X			X	X
Ma. 3 :	X	X		X	X	X			X	X
Mq. 1 :										
Mq. 2 :	X	X		X	X	X			X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X		X			X	X
Ra. 3 :	X	X	X	X	X	X			X	X
Sa. 1 :						X		X	X	X
Sa. 2 :						X			X	X
Sa. 3 :						X		X	X	X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :		X	X	X		X			X	
Ta. 7 :	X	X		X	X	X			X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :								X	X	
To. 2 :				X						
Tu. 1 :	X	X	X	X		X			X	X
Tu. 2 :		X	X	X		X			X	X
Tu. 3 :										
Tu. 4 :	X	X		X		X			X	X

<u>EASTER</u> <u>ISLAND</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :			X				X		X	
Ha. 2 :							X		X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X						X		X	
Ma. 1 :		X	X			X	X		X	
Ma. 2 :		X	X	X			X		X	X
Ma. 3 :		X	X				X		X	X
Mq. 1 :										
Mq. 2 :		X	X				X		X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X	X				X		X	
Ra. 3 :			X				X		X	
Sa. 1 :							X		X	
Sa. 2 :							X		X	
Sa. 3 :							X		X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :		X					X		X	
Ta. 7 :		X	X			X	X		X	X
Ta. 8 :										
Ta. 9 :										
Ta.10 :										
To. 1 :										
To. 2 :							X		X	
Tu. 1 :		X	X				X		X	
Tu. 2 :		X	X				X		X	
Tu. 3 :										
Tu. 4 :		X	X						X	

EASTER  
ISLAND

	21	22	23	24	25	26	27	28	29	30
Ha. 1 :					X		X	X		X
Ha. 2 :					X		X	X		X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :					X		X	X		X
Ma. 1 :	X		X	X	X		X		X	X
Ma. 2 :	X		X	X			X		X	X
Ma. 3 :	X		X	X	X		X	X	X	X
Mq. 1 :										
Mq. 2 :	X		X	X	X		X	X	X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X		X		X		X		X	X
Ra. 3 :	X		X		X		X	X	X	
Sa. 1 :	X		X		X		X			X
Sa. 2 :	X				X		X			X
Sa. 3 :	X				X		X	X		
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :	X		X	X	X		X		X	X
Ta. 7 :	X		X	X	X		X		X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :	X		X				X		X	
Tu. 1 :	X		X		X		X		X	X
Tu. 2 :	X	X	X		X		X		X	X
Tu. 3 :										
Tu. 4 :	X		X		X		X	X	X	X



<u>EASTER</u> <u>ISLAND</u>	31	32	33	34	35	36	37	38	39	40
Ha. 1 :						X	X			
Ha. 2 :						X	X			
Ha. 3 :										
Ha. 4 :										
Ha. 5 :							X			
Ma. 1 :					X	X	X		X	
Ma. 2 :					X	X	X	X	X	X
Ma. 3 :					X	X	X		X	X
Mq. 1 :										
Mq. 2 :					X	X	X			
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :					X		X		X	X
Ra. 3 :					X		X		X	
Sa. 1 :	X				X	X	X		X	
Sa. 2 :	X						X			
Sa. 3 :							X		X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X	X	X			X
Ta. 7 :					X	X	X			X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :	X				X		X			
Tu. 1 :					X		X		X	X
Tu. 2 :				X	X		X		X	X
Tu. 3 :										
Tu. 4 :	X				X	X	X		X	X

<u>EASTER ISLAND</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :		X		X						
Ha. 2 :		X		X		X				
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X		X					X	
Ma. 1 :		X		X	X				X	X
Ma. 2 :		X		X	X					X
Ma. 3 :		X		X	X			X	X	X
Mq. 1 :										
Mq. 2 :	X	X		X	X			X		X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X		X	X				X	X
Ra. 3 :		X		X				X	X	X
Sa. 1 :		X			X				X	
Sa. 2 :					X			X		
Sa. 3 :					X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :		X		X	X					
Ta. 7 :		X		X	X				X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :								X		X
Tu. 1 :		X			X				X	X
Tu. 2 :		X		X	X			X	X	X
Tu. 3 :										
Tu. 4 :		X		X	X				X	X

<u>EASTER ISLAND</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :				X						X
Ha. 2 :				X						X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :				X						X
Ma. 1 :		X	X	X			X		X	X
Ma. 2 :			X			X	X		X	X
Ma. 3 :			X	X			X		X	X
Mq. 1 :										
Mq. 2 :			X	X		X			X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X					X		X	
Ra. 3 :		X	X				X		X	X
Sa. 1 :				X			X			X
Sa. 2 :				X	X		X			X
Sa. 3 :				X	X		X			X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :									X	X
Ta. 7 :			X				X		X	X
Ta. 8 :										
Ta. 9 :										
Ta.10 :										
To. 1 :										
To. 2 :				X	X		X			X
Tu. 1 :							X		X	X
Tu. 2 :							X		X	X
Tu. 3 :										
Tu. 4 :							X		X	X

EASTER  
ISLAND

	61	62	63	64	65	66	67	68	69	70
Ha. 1 :	X			X	X					
Ha. 2 :	X		X	X	X					
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X		X	X	X					
Ma. 1 :	X		X	X	X			X		
Ma. 2 :	X		X	X						
Ma. 3 :	X		X	X				X		
Mq. 1 :										
Mq. 2 :	X		X	X	X					
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X		X	X	X			X		
Ra. 3 :	X		X	X	X		X	X		
Sa. 1 :			X	X	X					
Sa. 2 :		X		X						
Sa. 3 :	X		X	X						
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :	X		X	X	X					
Ta. 7 :	X		X	X						
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :	X			X						
Tu. 1 :	X		X	X	X			X		
Tu. 2 :	X		X	X	X			X		
Tu. 3 :										
Tu. 4 :			X	X						

EASTER  
ISLAND

	71	72	73	74	75	76	77	78	79	80
Ha. 1 :		X	X	X						
Ha. 2 :		X	X	X						
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X	X							
Ma. 1 :		X	X		X					
Ma. 2 :				X	X				X	
Ma. 3 :		X	X	X	X					
Mq. 1 :										
Mq. 2 :		X	X				X			
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X								
Ra. 3 :		X			X					
Sa. 1 :		X					X			
Sa. 2 :	X	X								
Sa. 3 :		X		X						
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :		X			X			X		
Ta. 7 :	X	X		X	X					
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :				X			X		X	X
Tu. 1 :		X		X						
Tu. 2 :		X		X	X				X	
Tu. 3 :										
Tu. 4 :		X		X	X					

EASTER  
ISLAND

	81	82	83	84	85	86	87	88	89	90
Ha. 1 :		X						X	X	
Ha. 2 :								X	X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :								X	X	
Ma. 1 :		X					X	X	X	X
Ma. 2 :			X		X		X	X	X	X
Ma. 3 :		X	X		X		X	X	X	X
Mq. 1 :										
Mq. 2 :			X		X	X	X	X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X	X	X			X	X	X	X
Ra. 3 :			X	X			X	X	X	X
Sa. 1 :									X	
Sa. 2 :										
Sa. 3 :										
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X		X	X	X	X
Ta. 7 :		X					X	X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :		X		X			X	X	X	
Tu. 1 :							X	X	X	X
Tu. 2 :							X	X	X	X
Tu. 3 :										
Tu. 4 :			X		X		X	X	X	X

<u>EASTER</u> <u>ISLAND</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :			X	X	X	X				
Ha. 2 :			X	X	X	X		X	X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X		X	X	X	X				
Ma. 1 :			X	X	X	X		X	X	
Ma. 2 :	X			X	X	X		X		
Ma. 3 :				X	X	X		X	X	
Mq. 1 :										
Mq. 2 :				X	X	X		X		
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X			X	X	X		X	X	
Ra. 3 :	X		X	X	X	X		X		
Sa. 1 :	X		X	X	X			X	X	
Sa. 2 :	X			X	X	X		X	X	
Sa. 3 :	X		X	X	X			X	X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :				X	X	X		X	X	
Ta. 7 :	X			X	X	X		X	X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :				X	X	X		X	X	
Tu. 1 :				X	X	X		X	X	
Tu. 2 :				X	X	X		X	X	
Tu. 3 :										
Tu. 4 :	X			X	X	X		X		

<u>HAWAII</u>	1	2	3	4	5	6	7	8	9	0
Ha. 1 :		X	X	X	X	X	X	X	X	X
Ha. 2 :	X	X	X	X	X	X	X	X	X	
Ha. 3 :										
Ha. 4 :	X	X		X	X	X	X	X	X	X
Ha. 5 :	X	X		X	X	X	X	X	X	X
Ma. 1 :	X	X		X	X	X		X		X
Ma. 2 :		X		X	X	X		X	X	X
Ma. 3 :				X	X	X		X		X
Mq. 1 :										
Mq. 2 :				X	X	X		X		X
Mq. 3 :					X	X		X		
Mq. 4 :				X	X	X		X		X
Ra. 1 :										
Ra. 2 :		X		X		X		X		X
Ra. 3 :		X		X	X	X		X		X
Sa. 1 :						X			X	X
Sa. 2 :						X			X	X
Sa. 3 :						X				X
Sa. 4 :				X		X		X		X
Ta. 1 :		X		X		X		X	X	X
Ta. 2 :		X		X	X	X		X	X	X
Ta. 3 :		X		X		X		X		X
Ta. 4 :				X		X		X		X
Ta. 5 :		X				X		X	X	X
Ta. 6 :				X		X		X	X	
Ta. 7 :				X	X	X		X	X	
Ta. 8 :										
Ta. 9 :		X		X	X	X		X		X
Ta. 10 :				X	X	X		X	X	
To. 1 :						X				
To. 2 :				X						
Tu. 1 :				X		X		X		X
Tu. 2 :		X	X	X		X		X		X
Tu. 3 :										
Tu. 4 :					X	X		X		X



<u>HAWAII</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :		X	X		X	X	X	X	X	X
Ha. 2 :		X	X		X	X	X	X	X	X
Ha. 3 :										
Ha. 4 :		X			X	X	X	X	X	X
Ha. 5 :		X	X		X	X	X	X	X	X
Ma. 1 :					X	X	X		X	X
Ma. 2 :						X	X		X	
Ma. 3 :					X	X			X	
Mq. 1 :										
Mq. 2 :					X	X			X	
Mq. 3 :						X			X	
Mq. 4 :				X	X	X	X		X	
Ra. 1 :										
Ra. 2 :					X	X	X		X	
Ra. 3 :					X		X		X	
Sa. 1 :						X	X		X	
Sa. 2 :						X	X		X	
Sa. 3 :				X		X	X		X	
Sa. 4 :				X		X	X		X	
Ta. 1 :	X					X	X		X	
Ta. 2 :						X	X		X	
Ta. 3 :				X		X	X		X	X
Ta. 4 :						X	X		X	
Ta. 5 :						X	X		X	
Ta. 6 :						X	X		X	X
Ta. 7 :						X	X		X	
Ta. 8 :										
Ta. 9 :		X				X	X		X	
Ta. 10 :						X	X		X	
To. 1 :						X	X		X	
To. 2 :				X		X	X		X	
Tu. 1 :			X				X		X	X
Tu. 2 :									X	X
Tu. 3 :									X	X
Tu. 4 :			X				X		X	

<u>HAWAII</u>	21	22	23	24	25	26	27	28	29	30
Ha. 1 :	X	X	X	X	X	X			X	X
Ha. 2 :	X	X	X		X	X	X	X	X	X
Ha. 3 :										
Ha. 4 :	X	X	X	X	X	X	X	X	X	X
Ha. 5 :	X	X	X	X	X	X			X	X
Ma. 1 :		X						X		X
Ma. 2 :		X			X				X	X
Ma. 3 :		X						X		X
Mq. 1 :										
Mq. 2 :		X	X					X	X	
Mq. 3 :		X	X						X	X
Mq. 4 :		X	X		X			X	X	
Ra. 1 :										
Ra. 2 :		X							X	X
Ra. 3 :		X								X
Sa. 1 :			X		X				X	X
Sa. 2 :			X		X				X	X
Sa. 3 :			X		X			X	X	X
Sa. 4 :			X		X				X	X
Ta. 1 :		X	X		X				X	X
Ta. 2 :		X	X		X				X	X
Ta. 3 :		X	X		X				X	X
Ta. 4 :		X	X		X				X	X
Ta. 5 :		X	X		X				X	X
Ta. 6 :		X	X		X				X	X
Ta. 7 :		X			X			X	X	X
Ta. 8 :										
Ta. 9 :		X	X		X				X	X
Ta. 10 :		X	X		X				X	X
To. 1 :										
To. 2 :			X						X	
Tu. 1 :		X	X		X				X	
Tu. 2 :		X	X					X	X	X
Tu. 3 :										
Tu. 4 :		X	X		X			X	X	X

<u>HAWAII</u>	31	32	33	34	35	36	37	38	39	40
Ha. 1 :	X	X	X	X		X	X	X	X	X
Ha. 2 :	X	X	X	X	X	X	X	X	X	X
Ha. 3 :										
Ha. 4 :	X	X	X	X		X	X	X	X	X
Ha. 5 :	X	X	X	X	X	X	X	X	X	X
Ma. 1 :	X			X		X	X	X		
Ma. 2 :	X			X		X	X	X		
Ma. 3 :	X			X		X	X	X		
Mq. 1 :										
Mq. 2 :	X			X		X	X	X		
Mq. 3 :	X			X		X	X			
Mq. 4 :				X		X	X	X		
Ra. 1 :										
Ra. 2 :	X			X			X			
Ra. 3 :										
Sa. 1 :					X		X	X		
Sa. 2 :					X		X			
Sa. 3 :							X	X		
Sa. 4 :					X		X			
Ta. 1 :				X			X	X		
Ta. 2 :				X	X		X	X		
Ta. 3 :				X	X		X			
Ta. 4 :	X			X	X		X	X		
Ta. 5 :				X			X			
Ta. 6 :				X			X	X		
Ta. 7 :	X			X			X	X		
Ta. 8 :										
Ta. 9 :				X	X		X			
Ta. 10 :				X			X			
To. 1 :							X			
To. 2 :							X			
Tu. 1 :	X			X			X	X		
Tu. 2 :	X			X			X			
Tu. 3 :										
Tu. 4 :				X			X	X		



<u>HAWAII</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :	X	X	X	X	X	X	X	X	X	
Ha. 2 :	X	X	X	X	X	X	X	X		X
Ha. 3 :										
Ha. 4 :	X	X	X	X	X		X	X	X	X
Ha. 5 :	X	X	X	X	X		X	X	X	X
Ma. 1 :	X		X	X		X				X
Ma. 2 :	X		X	X		X		X		
Ma. 3 :	X		X	X		X	X	X		X
Mq. 1 :										
Mq. 2 :				X		X	X	X	X	X
Mq. 3 :			X	X		X	X			
Mq. 4 :			X	X		X	X	X	X	X
Ra. 1 :										
Ra. 2 :						X		X		X
Ra. 3 :						X	X			
Sa. 1 :				X			X			X
Sa. 2 :				X			X			X
Sa. 3 :				X			X			X
Sa. 4 :				X			X			X
Ta. 1 :			X					X		X
Ta. 2 :			X			X		X		
Ta. 3 :						X				X
Ta. 4 :						X		X		X
Ta. 5 :			X			X	X	X		
Ta. 6 :			X			X				X
Ta. 7 :	X		X			X	X	X		
Ta. 8 :										
Ta. 9 :	X		X	X				X		X
Ta. 10 :			X			X	X	X		X
To. 1 :			X							
To. 2 :				X						X
Tu. 1 :						X		X		X
Tu. 2 :			X			X	X	X		X
Tu. 3 :										
Tu. 4 :			X			X		X		X

<u>HAWAII</u>	61	62	63	64	65	66	67	68	69	70
Ha. 1 :	X	X	X	X	X	X	X	X		X
Ha. 2 :	X	X		X	X	X		X	X	X
Ha. 3 :										
Ha. 4 :	X	X	X	X	X			X	X	X
Ha. 5 :	X	X		X	X	X	X	X	X	X
Ma. 1 :	X	X		X	X			X		X
Ma. 2 :	X	X		X	X					X
Ma. 3 :	X	X		X	X					X
Mq. 1 :										
Mq. 2 :	X	X		X	X					X
Mq. 3 :	X			X	X					X
Mq. 4 :	X				X					X
Ra. 1 :										
Ra. 2 :	X			X	X					X
Ra. 3 :		X		X						
Sa. 1 :	X		X	X				X		
Sa. 2 :	X		X	X	X			X		
Sa. 3 :	X		X	X				X		
Sa. 4 :	X		X	X	X		X	X		
Ta. 1 :	X				X		X			X
Ta. 2 :	X	X			X					X
Ta. 3 :	X	X			X					X
Ta. 4 :	X	X			X	X				X
Ta. 5 :	X	X	X	X	X			X		X
Ta. 6 :	X	X			X					
Ta. 7 :	X	X	X	X	X	X				
Ta. 8 :										
Ta. 9 :	X	X	X	X	X	X				
Ta. 10 :	X			X	X					X
To. 1 :	X									
To. 2 :	X			X						
Tu. 1 :	X	X	X		X	X				X
Tu. 2 :	X	X		X		X		X		X
Tu. 3 :										
Tu. 4 :	X	X		X	X					X

<u>HAWAII</u>	71	72	73	74	75	76	77	78	79	80
Ha. 1 :	X	X	X	X	X	X	X	X	X	X
Ha. 2 :	X	X		X	X	X	X	X	X	X
Ha. 3 :										
Ha. 4 :	X	X	X	X	X	X	X	X	X	X
Ha. 5 :	X	X		X	X	X	X	X	X	X
Ma. 1 :		X	X	X		X				
Ma. 2 :		X	X	X	X	X				
Ma. 3 :			X	X		X				
Mq. 1 :										
Mq. 2 :			X	X	X	X				
Mq. 3 :			X	X	X	X				
Mq. 4 :			X	X	X	X				
Ra. 1 :										
Ra. 2 :				X		X				
Ra. 3 :		X		X	X	X				
Sa. 1 :		X		X		X			X	
Sa. 2 :		X		X		X			X	
Sa. 3 :				X					X	
Sa. 4 :				X		X			X	
Ta. 1 :	X				X	X				
Ta. 2 :	X					X				
Ta. 3 :	X			X	X	X				
Ta. 4 :	X				X	X				
Ta. 5 :	X			X	X	X				
Ta. 6 :					X	X				
Ta. 7 :	X	X			X	X				
Ta. 8 :										
Ta. 9 :			X	X	X				X	
Ta. 10 :		X			X					
To. 1 :						X				
To. 2 :				X		X				
Tu. 1 :	X			X		X				
Tu. 2 :	X	X		X		X				
Tu. 3 :										
Tu. 4 :	X			X	X	X				

<u>HAWAII</u>	81	82	83	84	85	86	87	88	89	90
Ha. 1 :	X	X	X	X	X	X	X	X	X	X
Ha. 2 :	X	X	X	X	X	X	X	X	X	X
Ha. 3 :										
Ha. 4 :	X	X	X	X	X	X		X	X	X
Ha. 5 :	X	X	X	X	X	X	X	X	X	X
Ma. 1 :	X	X	X				X	X	X	
Ma. 2 :	X	X	X				X	X	X	
Ma. 3 :	X		X				X	X	X	
Mq. 1 :										
Mq. 2 :			X		X	X	X	X	X	
Mq. 3 :			X		X		X	X	X	
Mq. 4 :			X		X		X	X	X	
Ra. 1 :										
Ra. 2 :			X				X	X	X	
Ra. 3 :		X			X	X	X	X	X	
Sa. 1 :		X					X		X	
Sa. 2 :		X					X		X	
Sa. 3 :		X					X		X	
Sa. 4 :		X					X		X	
Ta. 1 :			X		X		X	X	X	X
Ta. 2 :			X		X		X	X	X	X
Ta. 3 :			X		X		X	X	X	
Ta. 4 :			X				X	X	X	
Ta. 5 :			X		X	X	X	X	X	
Ta. 6 :			X				X	X	X	
Ta. 7 :		X			X		X	X	X	
Ta. 8 :										
Ta. 9 :		X	X		X	X	X	X	X	X
Ta. 10 :			X		X		X	X	X	
To. 1 :							X	X		
To. 2 :							X	X	X	
Tu. 1 :			X		X		X	X	X	
Tu. 2 :			X		X		X	X	X	
Tu. 3 :										
Tu. 4 :			X		X	X	X	X	X	



<u>HAWAII</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :	X	X	X	X	X	X		X	X	X
Ha. 2 :	X	X	X	X	X	X		X	X	X
Ha. 3 :										
Ha. 4 :		X	X	X	X	X		X	X	X
Ha. 5 :	X	X	X	X	X	X		X	X	X
Ma. 1 :				X	X	X		X	X	
Ma. 2 :	X			X	X	X		X	X	
Ma. 3 :				X	X	X		X	X	
Mq. 1 :										
Mq. 2 :		X		X		X		X	X	
Mq. 3 :				X		X		X	X	
Mq. 4 :	X			X		X		X	X	
Ra. 1 :										
Ra. 2 :				X	X	X		X	X	
Ra. 3 :	X			X		X		X	X	
Sa. 1 :	X				X			X	X	
Sa. 2 :	X			X	X			X		
Sa. 3 :	X				X			X	X	
Sa. 4 :	X			X	X			X	X	
Ta. 1 :				X	X	X		X	X	
Ta. 2 :		X			X	X		X	X	
Ta. 3 :					X	X		X	X	
Ta. 4 :				X	X	X		X	X	
Ta. 5 :	X			X	X	X		X	X	
Ta. 6 :					X	X		X	X	
Ta. 7 :	X			X	X	X		X	X	
Ta. 8 :										
Ta. 9 :	X			X	X	X		X	X	
Ta. 10 :				X	X	X		X	X	
To. 1 :					X				X	
To. 2 :				X	X			X	X	
Tu. 1 :				X	X	X		X	X	
Tu. 2 :				X	X	X		X	X	
Tu. 3 :										
Tu. 4 :	X			X	X	X		X	X	



<u>KAPINGA-</u> <u>MARANGI</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :						X	X		X	
Ha. 2 :						X	X		X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :						X	X			
Ma. 1 :										
Ma. 2 :					X	X	X		X	X
Ma. 3 :					X	X	X			
Mq. 1 :										
Mq. 2 :					X	X	X		X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :						X	X		X	
Ra. 3 :						X	X		X	
Sa. 1 :	X					X	X		X	X
Sa. 2 :										
Sa. 3 :										
Sa. 4 :					X	X	X		X	X
Ta. 1 :						X	X		X	
Ta. 2 :										
Ta. 3 :						X	X			X
Ta. 4 :										
Ta. 5 :						X	X		X	
Ta. 6 :						X	X		X	
Ta. 7 :						X	X			
Ta. 8 :					X	X	X		X	
Ta. 9 :						X	X			
Ta. 10 :						X			X	
To. 1 :						X	X		X	
To. 2 :						X	X		X	
Tu. 1 :						X	X		X	
Tu. 2 :						X	X		X	
Tu. 3 :										
Tu. 4 :					X	X	X		X	

KAPINGA-  
MARANGI

	21	22	23	24	25	26	27	28	29	30
Ha. 1 :							X	X		
Ha. 2 :								X		
Ha. 3 :										
Ha. 4 :										
Ha. 5 :								X		
Ma. 1 :										
Ma. 2 :								X	X	
Ma. 3 :	X								X	
Mq. 1 :										
Mq. 2 :	X							X	X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X									X
Ra. 3 :	X									X
Sa. 1 :	X									X
Sa. 2 :										
Sa. 3 :	X							X		
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X									X
Ta. 4 :										
Ta. 5 :	X				X					X
Ta. 6 :										X
Ta. 7 :	X									X
Ta. 8 :	X									X
Ta. 9 :	X									X
Ta. 10 :	X									X
To. 1 :		X								X
To. 2 :	X									X
Tu. 1 :	X									X
Tu. 2 :	X				X					X
Tu. 3 :										
Tu. 4 :	X							X	X	

KAPINGA-  
MARANGI

	31	32	33	34	35	36	37	38	39	40
Ha. 1 :										
Ha. 2 :										
Ha. 3 :										
Ha. 4 :										
Ha. 5 :										
Ma. 1 :										
Ma. 2 :							X	X	X	X
Ma. 3 :									X	
Mq. 1 :										
Mq. 2 :							X	X		
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :							X	X	X	
Ra. 3 :							X	X	X	X
Sa. 1 :							X			
Sa. 2 :										
Sa. 3 :							X			
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :								X		
Ta. 7 :									X	
Ta. 8 :										
Ta. 9 :									X	
Ta. 10 :										
To. 1 :										
To. 2 :	X									
Tu. 1 :										
Tu. 2 :					X		X		X	
Tu. 3 :										
Tu. 4 :					X					



KAPINGA-  
MARANGI

	51	52	53	54	55	56	57	58	59	60
Ha. 1 :										X
Ha. 2 :						X				X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :										X
Ma. 1 :										
Ma. 2 :				X		X	X			X
Ma. 3 :				X		X	X			X
Mq. 1 :										
Mq. 2 :	X									X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :				X			X			X
Ra. 3 :				X						X
Sa. 1 :	X					X	X			X
Sa. 2 :										
Sa. 3 :										
Sa. 4 :						X		X		X
Ta. 1 :				X		X				X
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :						X	X			X
Ta. 6 :						X				X
Ta. 7 :				X		X				X
Ta. 8 :						X				X
Ta. 9 :	X			X						X
Ta. 10 :							X			
To. 1 :						X				
To. 2 :							X			X
Tu. 1 :						X				X
Tu. 2 :						X		X		X
Tu. 3 :										
Tu. 4 :	X					X	X			X

<u>KAPINGA-</u> <u>MARANGI</u>	61	62	63	64	65	66	67	68	69	70
Ha. 1 :				X	X					
Ha. 2 :					X					
Ha. 3 :										
Ha. 4 :										
Ha. 5 :					X					
Ma. 1 :										
Ma. 2 :			X	X						
Ma. 3 :			X	X	X					
Mq. 1 :										
Mq. 2 :			X	X						
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :			X	X	X			X		
Ra. 3 :			X	X	X		X		X	
Sa. 1 :			X	X	X					
Sa. 2 :										
Sa. 3 :										
Sa. 4 :			X	X						
Ta. 1 :			X							
Ta. 2 :										
Ta. 3 :				X				X		
Ta. 4 :										
Ta. 5 :			X	X						
Ta. 6 :			X		X					
Ta. 7 :			X							
Ta. 8 :			X	X	X			X		
Ta. 9 :			X	X			X			
Ta. 10 :				X	X					
To. 1 :				X						
To. 2 :				X						
Tu. 1 :				X	X			X		
Tu. 2 :			X	X				X		
Tu. 3 :										
Tu. 4 :			X	X						



<u>KAPINGA-</u> <u>MARANGI</u>	71	72	73	74	75	76	77	78	79	80
Ha. 1 :				X						
Ha. 2 :				X					X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :										
Ma. 1 :										
Ma. 2 :				X	X					
Ma. 3 :				X	X				X	
Mq. 1 :										
Mq. 2 :				X						X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :				X					X	X
Ra. 3 :					X				X	X
Sa. 1 :				X					X	X
Sa. 2 :										
Sa. 3 :										
Sa. 4 :										
Ta. 1 :				X					X	
Ta. 2 :										
Ta. 3 :				X	X		X			
Ta. 4 :										
Ta. 5 :				X	X				X	
Ta. 6 :				X	X					
Ta. 7 :				X	X					
Ta. 8 :				X	X		X			
Ta. 9 :				X	X		X		X	X
Ta.10 :					X					
To. 1 :										
To. 2 :				X	X					
Tu. 1 :				X	X					
Tu. 2 :				X	X					
Tu. 3 :										
Tu. 4 :				X	X					

KAPINGA-  
MARANGI

	81	82	83	84	85	86	87	88	89	90
Ha. 1 :									X	
Ha. 2 :										
Ha. 3 :										
Ha. 4 :										
Ha. 5 :										
Ma. 1 :										
Ma. 2 :					X		X			X
Ma. 3 :		X	X				X			X
Mq. 1 :										
Mq. 2 :					X					X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :			X				X			
Ra. 3 :		X	X				X			X
Sa. 1 :							X		X	
Sa. 2 :										
Sa. 3 :										
Sa. 4 :										
Ta. 1 :					X					
Ta. 2 :										
Ta. 3 :					X	X	X			
Ta. 4 :										
Ta. 5 :			X		X		X			
Ta. 6 :			X							X
Ta. 7 :		X			X		X			X
Ta. 8 :										X
Ta. 9 :							X		X	X
Ta. 10 :			X		X		X			X
To. 1 :							X			
To. 2 :							X			
Tu. 1 :							X		X	X
Tu. 2 :			X				X			X
Tu. 3 :										
Tu. 4 :					X		X			X

KAPINGA-  
MARANGI

	91	92	93	94	95	96	97	98	99	100
Ha. 1 :			X	X						
Ha. 2 :			X	X						
Ha. 3 :										
Ha. 4 :										
Ha. 5 :			X	X						
Ma. 1 :										
Ma. 2 :	X			X	X			X		
Ma. 3 :								X		
Mq. 1 :										
Mq. 2 :				X	X					
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X			X				X		
Ra. 3 :				X				X		
Sa. 1 :			X	X	X			X		
Sa. 2 :										
Sa. 3 :										
Sa. 4 :			X							
Ta. 1 :				X	X			X		
Ta. 2 :										
Ta. 3 :					X			X		
Ta. 4 :										
Ta. 5 :	X							X	X	
Ta. 6 :				X	X					
Ta. 7 :				X	X			X		
Ta. 8 :	X				X					
Ta. 9 :	X		X	X						
Ta. 10 :				X						
To. 1 :		X								
To. 2 :				X	X			X		
Tu. 1 :				X				X		
Tu. 2 :				X	X					
Tu. 3 :										
Tu. 4 :								X		

<u>MANGA-</u> <u>REVA</u>	1	2	3	4	5	6	7	8	9	10
Ha. 1 :						X	X			X
Ha. 2 :			X			X				X
Ha. 3 :						X				X
Ha. 4 :										
Ha. 5 :					X	X				X
Ma. 1 :	X	X	X	X	X	X	X	X	X	X
Ma. 2 :	X	X	X	X	X	X	X	X	X	X
Ma. 3 :	X	X	X	X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :		X		X	X	X	X		X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X		X		X			X	X
Ra. 3 :		X		X	X	X			X	X
Sa. 1 :						X			X	X
Sa. 2 :						X			X	X
Sa. 3 :						X			X	X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X		X			X	X
Ta. 4 :										
Ta. 5 :				X		X			X	X
Ta. 6 :		X		X		X			X	X
Ta. 7 :		X	X	X	X	X	X	X	X	X
Ta. 8 :										
Ta. 9 :				X	X	X			X	X
Ta. 10 :		X				X			X	X
To. 1 :										
To. 2 :				X		X			X	
Tu. 1 :		X		X		X			X	X
Tu. 2 :										
Tu. 3 :				X		X			X	X
Tu. 4 :				X	X	X			X	X

MANGA-  
REVA

	11	12	13	14	15	16	17	18	19	20
Ha. 1 :							X		X	
Ha. 2 :							X		X	
Ha. 3 :							X		X	X
Ha. 4 :										
Ha. 5 :							X		X	X
Ma. 1 :	X	X	X	X	X	X	X	X	X	X
Ma. 2 :	X	X	X	X	X	X	X	X	X	X
Ma. 3 :	X	X	X	X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :			X		X	X	X	X	X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :			X				X	X	X	
Ra. 3 :			X		X		X	X	X	
Sa. 1 :							X	X	X	
Sa. 2 :							X	X	X	
Sa. 3 :	X						X	X	X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X		X	X	X	X	
Ta. 4 :										
Ta. 5 :			X	X	X		X	X	X	
Ta. 6 :				X			X	X	X	X
Ta. 7 :		X		X	X	X		X	X	X
Ta. 8 :										
Ta. 9 :				X			X	X	X	
Ta. 10 :			X	X				X	X	
To. 1 :										
To. 2 :						X	X	X	X	
Tu. 1 :			X	X			X	X	X	X
Tu. 2 :										
Tu. 3 :				X			X	X	X	X
Tu. 4 :				X	X	X	X	X	X	X

<u>MANGA-</u> <u>REVA</u>	21	22	23	24	25	26	27	28	29	30
Ha. 1 :		X			X					X
Ha. 2 :		X			X					X
Ha. 3 :		X			X					X
Ha. 4 :										
Ha. 5 :		X			X					X
Ma. 1 :	X	X	X	X	X		X	X	X	X
Ma. 2 :	X	X	X	X	X	X	X	X	X	X
Ma. 3 :	X	X	X	X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X	X	X	X	X				X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X		X	X		X	X	X
Ra. 3 :	X	X	X		X			X	X	X
Sa. 1 :					X				X	
Sa. 2 :					X				X	
Sa. 3 :	X				X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :		X	X	X	X					X
Ta. 4 :										
Ta. 5 :	X	X	X	X	X	X	X		X	X
Ta. 6 :		X	X	X	X					X
Ta. 7 :	X	X	X	X	X			X	X	X
Ta. 8 :										
Ta. 9 :		X	X		X				X	X
Ta. 10 :		X	X		X					X
To. 1 :										
To. 2 :	X		X						X	
Tu. 1 :	X	X	X		X			X	X	
Tu. 2 :										
Tu. 3 :		X	X		X				X	
Tu. 4 :	X	X	X		X			X	X	X

<u>MANGA-</u> <u>REVA</u>	31	32	33	34	35	36	37	38	39	40
Ha. 1 :	X						X			
Ha. 2 :	X						X			
Ha. 3 :							X			
Ha. 4 :										
Ha. 5 :	X	X					X			
Ma. 1 :	X	X	X	X	X	X	X	X	X	X
Ma. 2 :	X	X	X	X	X	X	X	X	X	X
Ma. 3 :	X	X	X	X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X		X		X		X	X		X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X			X		X	X	X	
Ra. 3 :	X	X			X		X	X	X	
Sa. 1 :							X			
Sa. 2 :							X			
Sa. 3 :							X		X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X						X			
Ta. 4 :										
Ta. 5 :	X	X			X		X	X		
Ta. 6 :	X				X		X	X		
Ta. 7 :	X			X	X	X	X	X	X	
Ta. 8 :										
Ta. 9 :	X				X		X	X		
Ta. 10 :					X		X	X		
To. 1 :										
To. 2 :		X			X					
Tu. 1 :	X	X			X		X	X		
Tu. 2 :										
Tu. 3 :	X				X		X	X		
Tu. 4 :					X		X	X	X	

<u>MANGA-</u> <u>REVA</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :		X	X		X	X		X		
Ha. 2 :		X			X	X			X	
Ha. 3 :		X			X	X		X	X	X
Ha. 4 :										
Ha. 5 :		X	X		X	X		X	X	
Ma. 1 :	X	X	X	X	X	X	X	X	X	X
Ma. 2 :	X	X	X	X	X	X			X	X
Ma. 3 :	X	X	X	X	X	X		X	X	X
Mq. 1 :										
Mq. 2 :	X	X		X				X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X		X		X		X	X	X
Ra. 3 :		X		X		X			X	X
Sa. 1 :						X		X		
Sa. 2 :		X						X		
Sa. 3 :		X						X		
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X	X			X	X			X	
Ta. 4 :										
Ta. 5 :	X	X	X	X	X				X	X
Ta. 6 :	X	X		X	X				X	
Ta. 7 :	X	X	X		X	X		X	X	X
Ta. 8 :										
Ta. 9 :	X	X		X	X	X			X	
Ta. 10 :	X			X	X				X	X
To. 1 :										
To. 2 :		X		X						X
Tu. 1 :	X	X							X	X
Tu. 2 :										
Tu. 3 :	X	X		X		X		X	X	
Tu. 4 :	X	X		X	X			X	X	X



MANGA-  
REVA

	51	52	53	54	55	56	57	58	59	60
Ha. 1 :	X						X			
Ha. 2 :	X						X			
Ha. 3 :	X						X			
Ha. 4 :										
Ha. 5 :	X					X				X
Ma. 1 :	X	X	X	X	X	X	X	X	X	X
Ma. 2 :	X		X	X	X	X	X	X		X
Ma. 3 :	X		X	X		X	X	X	X	X
Mq. 1 :										
Mq. 2 :			X	X			X	X		X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :				X			X	X		X
Ra. 3 :			X	X			X		X	X
Sa. 1 :							X			X
Sa. 2 :										X
Sa. 3 :							X			X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										X
Ta. 4 :										
Ta. 5 :		X	X				X	X		X
Ta. 6 :										
Ta. 7 :	X		X	X	X		X	X		X
Ta. 8 :										
Ta. 9 :				X			X	X		X
Ta. 10 :							X	X		X
To. 1 :										
To. 2 :							X			X
Tu. 1 :								X		X
Tu. 2 :										
Tu. 3 :							X	X		X
Tu. 4 :							X	X		X

MANGA-  
REVA

	61	62	63	64	65	66	67	68	69	70
Ha. 1 :				X	X		X			X
Ha. 2 :	X			X	X	X	X			X
Ha. 3 :				X	X		X			X
Ha. 4 :										
Ha. 5 :				X	X		X			X
Ma. 1 :	X	X	X	X	X	X	X	X	X	X
Ma. 2 :	X	X	X	X		X	X		X	X
Ma. 3 :	X	X	X	X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X		X	X	X			X		X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X	X		X	X		X
Ra. 3 :		X	X	X	X	X	X			X
Sa. 1 :			X							
Sa. 2 :				X						
Sa. 3 :				X	X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X	X	X	X			X
Ta. 4 :										
Ta. 5 :	X	X	X	X	X	X	X			X
Ta. 6 :				X	X					X
Ta. 7 :	X	X	X	X	X	X	X		X	
Ta. 8 :										
Ta. 9 :		X	X	X	X	X	X			X
Ta. 10 :		X		X	X					X
To. 1 :										
To. 2 :				X		X				
Tu. 1 :		X		X	X			X		
Tu. 2 :										
Tu. 3 :		X		X	X	X		X		X
Tu. 4 :		X	X	X	X	X				X

<u>MANGA-</u> <u>REVA</u>	71	72	73	74	75	76	77	78	79	80
Ha. 1 :			X			X				
Ha. 2 :		X	X			X			X	
Ha. 3 :				X		X			X	
Ha. 4 :						X			X	
Ha. 5 :		X	X			X			X	
Ma. 1 :	X	X	X		X	X	X		X	X
Ma. 2 :	X	X	X	X	X	X	X		X	X
Ma. 3 :	X	X	X	X	X	X	X		X	X
Mq. 1 :										
Mq. 2 :	X		X	X		X			X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X		X		X			X	X
Ra. 3 :		X		X	X	X			X	
Sa. 1 :		X				X			X	
Sa. 2 :		X							X	
Sa. 3 :		X				X			X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :		X				X				
Ta. 4 :										
Ta. 5 :		X		X	X	X			X	
Ta. 6 :		X			X	X				
Ta. 7 :	X	X			X	X	X			
Ta. 8 :										
Ta. 9 :		X	X			X			X	
Ta. 10 :		X			X	X				
To. 1 :										
To. 2 :					X	X				
Tu. 1 :		X			X	X				
Tu. 2 :										
Tu. 3 :		X				X				
Tu. 4 :		X			X	X				

<u>MANGA-</u> <u>REVA</u>	81	82	83	84	85	86	87	88	89	90
Ha. 1 :	X							X	X	X
Ha. 2 :	X							X		
Ha. 3 :	X									
Ha. 4 :										
Ha. 5 :	X							X		X
Ma. 1 :	X	X	X				X	X	X	X
Ma. 2 :	X	X	X			X	X	X	X	X
Ma. 3 :	X	X	X				X	X	X	X
Mq. 1 :										
Mq. 2 :			X				X	X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X	X				X	X	X	X
Ra. 3 :	X	X	X				X	X	X	X
Sa. 1 :										
Sa. 2 :							X			
Sa. 3 :		X								
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :		X					X			X
Ta. 4 :										
Ta. 5 :	X		X				X	X	X	X
Ta. 6 :			X				X	X	X	X
Ta. 7 :	X	X	X				X	X	X	X
Ta. 8 :										
Ta. 9 :		X					X	X		X
Ta. 10 :			X				X	X	X	X
To. 1 :										
To. 2 :				X			X	X		
Tu. 1 :							X	X	X	X
Tu. 2 :										
Tu. 3 :										X
Tu. 4 :							X			X

<u>MANGA-</u> <u>REVA</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :	X			X	X					X
Ha. 2 :				X	X		X			
Ha. 3 :				X	X					
Ha. 4 :										
Ha. 5 :	X			X	X			X		X
Ma. 1 :		X	X	X	X	X	X	X	X	X
Ma. 2 :			X	X	X	X	X	X	X	
Ma. 3 :			X	X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :		X		X	X	X		X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X			X	X	X		X		X
Ra. 3 :	X		X	X	X	X		X	X	X
Sa. 1 :	X			X	X					
Sa. 2 :	X			X	X					
Sa. 3 :	X			X	X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X	X	X		X	X	
Ta. 4 :										
Ta. 5 :				X	X	X		X	X	X
Ta. 6 :				X	X	X		X		
Ta. 7 :	X		X	X	X	X	X	X	X	
Ta. 8 :										
Ta. 9 :	X			X	X		X	X	X	X
Ta. 10 :				X	X	X				X
To. 1 :										
To. 2 :				X	X					
Tu. 1 :				X	X					X
Tu. 2 :										
Tu. 3 :				X	X					
Tu. 4 :			X	X	X	X		X		























<u>MARQUE-</u> <u>SAS</u>	1	2	3	4	5	6	7	8	9	10
Ha. 1 :				X		X				X
Ha. 2 :						X	X		X	
Ha. 3 :										
Ha. 4 :										X
Ha. 5 :				X		X				X
Ma. 1 :		X	X	X		X			X	X
Ma. 2 :				X				X	X	X
Ma. 3 :				X		X			X	X
Mq. 1 :	X	X	X	X	X	X	X	X	X	X
Mq. 2 :	X	X	X	X	X	X	X	X	X	X
Mq. 3 :	X	X	X	X	X	X	X	X	X	X
Mq. 4 :	X	X	X	X	X	X	X	X	X	X
Ra. 1 :										
Ra. 2 :		X				X			X	X
Ra. 3 :				X		X			X	X
Sa. 1 :			X			X			X	X
Sa. 2 :			X			X			X	X
Sa. 3 :			X			X			X	X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :									X	
Ta. 4 :										
Ta. 5 :										
Ta. 6 :				X		X		X		X
Ta. 7 :				X		X	X	X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :		X		X		X		X	X	X
To. 1 :										
To. 2 :									X	
Tu. 1 :						X		X	X	X
Tu. 2 :		X		X		X		X	X	X
Tu. 3 :									X	X
Tu. 4 :				X		X			X	X



<u>MARQUE-</u> <u>SAS</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :	X						X		X	
Ha. 2 :	X					X	X		X	
Ha. 3 :										
Ha. 4 :	X					X	X			
Ha. 5 :	X						X		X	
Ma. 1 :						X	X		X	
Ma. 2 :						X	X		X	
Ma. 3 :						X	X		X	
Mq. 1 :	X			X	X	X	X	X	X	X
Mq. 2 :	X			X	X	X	X	X	X	X
Mq. 3 :	X			X		X	X	X	X	X
Mq. 4 :	X	X	X	X	X	X		X	X	X
Ra. 1 :										
Ra. 2 :							X		X	
Ra. 3 :							X		X	
Sa. 1 :							X		X	
Sa. 2 :							X		X	
Sa. 3 :				X		X	X		X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :						X	X		X	
Ta. 4 :										
Ta. 5 :										
Ta. 6 :						X	X		X	
Ta. 7 :						X	X		X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :						X		X	X	
To. 1 :										
To. 2 :							X		X	
Tu. 1 :						X	X		X	
Tu. 2 :						X			X	
Tu. 3 :										
Tu. 4 :						X	X		X	

<u>MARQUE-</u> <u>SAS</u>	21	22	23	24	25	26	27	28	29	30
Ha. 1 :					X					
Ha. 2 :					X			X		
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X			X				X	
Ma. 1 :			X	X	X			X	X	
Ma. 2 :		X	X	X	X					
Ma. 3 :			X	X	X				X	
Mq. 1 :	X	X	X	X	X	X		X	X	
Mq. 2 :	X	X	X	X	X		X	X	X	X
Mq. 3 :	X	X	X	X	X	X	X	X	X	
Mq. 4 :	X	X	X	X	X		X	X	X	X
Ra. 1 :										
Ra. 2 :			X		X					
Ra. 3 :			X		X			X	X	
Sa. 1 :					X				X	
Sa. 2 :					X				X	
Sa. 3 :									X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :					X				X	
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X			X		
Ta. 7 :			X	X	X					
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X	X		X				X	
To. 1 :										
To. 2 :			X		X				X	
Tu. 1 :					X				X	
Tu. 2 :			X		X				X	
Tu. 3 :										
Tu. 4 :			X		X			X		

MARQUE-  
SAS

	31	32	33	34	35	36	37	38	39	40
Ha. 1 :										
Ha. 2 :	X									
Ha. 3 :										
Ha. 4 :										
Ha. 5 :						X				
Ma. 1 :	X		X	X		X	X	X		X
Ma. 2 :	X			X		X	X	X		X
Ma. 3 :	X				X	X		X		X
Mq. 1 :	X	X	X	X		X	X	X	X	X
Mq. 2 :	X	X	X	X		X	X	X	X	X
Mq. 3 :	X			X		X	X	X	X	X
Mq. 4 :	X	X	X	X		X	X	X	X	X
Ra. 1 :										
Ra. 2 :	X				X			X	X	
Ra. 3 :	X				X			X		
Sa. 1 :					X					
Sa. 2 :					X					
Sa. 3 :					X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X									
Ta. 4 :										
Ta. 5 :										
Ta. 6 :				X	X					
Ta. 7 :	X			X				X		
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X		X			X	X		
To. 1 :										
To. 2 :										
Tu. 1 :								X		
Tu. 2 :	X			X	X		X			
Tu. 3 :										
Tu. 4 :	X			X				X		

<u>MARQUE-</u> <u>SAS</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :		X		X						
Ha. 2 :		X		X						
Ha. 3 :										
Ha. 4 :		X								
Ha. 5 :		X		X						X
Ma. 1 :		X								
Ma. 2 :		X							X	X
Ma. 3 :		X		X				X		
Mq. 1 :	X	X	X	X	X	X		X	X	X
Mq. 2 :	X	X	X	X	X			X	X	X
Mq. 3 :	X	X	X	X	X	X		X	X	X
Mq. 4 :	X	X		X	X	X		X	X	X
Ra. 1 :										
Ra. 2 :		X		X				X		
Ra. 3 :		X		X						X
Sa. 1 :		X						X		X
Sa. 2 :		X								X
Sa. 3 :		X								X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :		X		X						
Ta. 4 :										
Ta. 5 :										
Ta. 6 :				X						X
Ta. 7 :		X		X				X		X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :		X		X					X	
To. 1 :										
To. 2 :		X						X		
Tu. 1 :		X		X					X	
Tu. 2 :		X		X					X	
Tu. 3 :										
Tu. 4 :		X		X				X		X

<u>MARQUE-</u> <u>SAS</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :				X	X		X		X	
Ha. 2 :	X			X	X		X			X
Ha. 3 :										
Ha. 4 :				X						
Ha. 5 :				X						X
Ma. 1 :	X			X				X		X
Ma. 2 :	X			X	X		X		X	X
Ma. 3 :	X									X
Mq. 1 :	X		X	X	X	X	X	X		X
Mq. 2 :	X	X	X	X	X	X	X			X
Mq. 3 :	X		X	X	X	X	X	X		X
Mq. 4 :	X	X		X	X	X	X	X	X	
Ra. 1 :										
Ra. 2 :								X		X
Ra. 3 :							X	X		X
Sa. 1 :	X			X						
Sa. 2 :	X			X						
Sa. 3 :	X			X			X			
Sa. 4 :										X
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										X
Ta. 4 :										
Ta. 5 :										
Ta. 6 :										X
Ta. 7 :	X		X					X		X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X			X				X		
To. 1 :										
To. 2 :	X			X						X
Tu. 1 :	X							X		X
Tu. 2 :							X	X		X
Tu. 3 :										
Tu. 4 :	X							X		X

<u>MARQUE-</u> <u>SAS</u>	61	62	63	64	65	66	67	68	69	70
Ha. 1 :	X		X							
Ha. 2 :	X		X							X
Ha. 3 :										
Ha. 4 :	X		X		X					
Ha. 5 :	X	X	X		X					X
Ma. 1 :	X	X	X		X			X		
Ma. 2 :	X	X	X	X	X					
Ma. 3 :	X		X		X					
Mq. 1 :	X	X	X	X		X	X	X	X	
Mq. 2 :	X	X	X	X	X	X	X	X	X	
Mq. 3 :	X	X	X	X		X	X		X	
Mq. 4 :	X	X	X	X	X	X	X	X	X	
Ra. 1 :										
Ra. 2 :	X		X		X			X		
Ra. 3 :	X		X		X					X
Sa. 1 :	X		X							
Sa. 2 :	X									
Sa. 3 :			X		X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :					X					
Ta. 4 :										
Ta. 5 :										
Ta. 6 :	X		X		X					
Ta. 7 :	X	X	X		X					
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X	X	X	X	X				
To. 1 :										
To. 2 :	X							X		
Tu. 1 :	X		X		X			X		X
Tu. 2 :	X		X		X			X		X
Tu. 3 :										
Tu. 4 :	X		X		X			X		

<u>MARQUE-</u> <u>SAS</u>	71	72	73	74	75	76	77	78	79	80
Ha. 1 :								X	X	
Ha. 2 :			X			X		X		
Ha. 3 :										
Ha. 4 :										
Ha. 5 :			X			X		X	X	
Ma. 1 :	X		X			X			X	
Ma. 2 :	X		X			X			X	
Ma. 3 :			X						X	
Mq. 1 :	X	X	X	X	X	X	X	X	X	X
Mq. 2 :	X	X	X	X	X	X	X	X	X	X
Mq. 3 :		X	X	X	X	X			X	X
Mq. 4 :	X	X		X	X	X	X	X	X	X
Ra. 1 :										
Ra. 2 :						X			X	X
Ra. 3 :								X	X	
Sa. 1 :									X	
Sa. 2 :						X			X	
Sa. 3 :									X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :										
Ta. 7 :						X			X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X					X	X			
To. 1 :										
To. 2 :									X	
Tu. 1 :										
Tu. 2 :						X				
Tu. 3 :										
Tu. 4 :	X					X				

<u>MARQUE-</u> <u>SAS</u>	81	82	83	84	85	86	87	88	89	90
Ha. 1 :							X		X	
Ha. 2 :							X		X	
Ha. 3 :										
Ha. 4 :							X			
Ha. 5 :							X			X
Ma. 1 :			X			X	X		X	X
Ma. 2 :			X			X			X	
Ma. 3 :			X				X		X	X
Mq. 1 :	X	X	X		X		X	X	X	X
Mq. 2 :	X	X	X		X	X	X	X	X	X
Mq. 3 :	X	X	X		X		X		X	X
Mq. 4 :	X	X	X		X		X	X	X	X
Ra. 1 :										
Ra. 2 :			X			X	X			X
Ra. 3 :			X				X		X	X
Sa. 1 :							X			
Sa. 2 :										
Sa. 3 :							X			
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :						X	X			
Ta. 4 :										
Ta. 5 :										
Ta. 6 :							X		X	
Ta. 7 :							X		X	
Ta. 8 :										
Ta. 9 :										
Ta.10 :			X				X	X	X	X
To. 1 :										
To. 2 :							X			
Tu. 1 :							X		X	X
Tu. 2 :							X		X	X
Tu. 3 :										
Tu. 4 :					X		X		X	X



<u>MARQUE-</u> <u>SAS</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :				X	X	X		X		
Ha. 2 :		X		X	X	X			X	
Ha. 3 :										
Ha. 4 :				X	X	X			X	
Ha. 5 :				X	X	X		X		
Ma. 1 :			X	X	X	X		X	X	
Ma. 2 :				X	X	X		X	X	
Ma. 3 :			X	X	X	X		X	X	
Mq. 1 :		X	X	X	X	X	X	X	X	
Mq. 2 :		X	X	X	X	X	X	X	X	
Mq. 3 :		X	X	X	X	X	X	X		X
Mq. 4 :		X	X	X	X	X	X	X	X	X
Ra. 1 :										
Ra. 2 :				X	X		X	X	X	
Ra. 3 :			X	X	X	X			X	
Sa. 1 :				X	X	X		X		
Sa. 2 :				X	X			X	X	
Sa. 3 :				X	X			X	X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :			X		X			X		
Ta. 4 :										
Ta. 5 :										
Ta. 6 :			X	X		X		X	X	
Ta. 7 :			X	X	X	X		X	X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :			X	X	X	X	X	X		
To. 1 :										
To. 2 :		X		X	X			X	X	
Tu. 1 :			X	X	X	X		X	X	
Tu. 2 :			X	X	X	X		X	X	
Tu. 3 :										
Tu. 4 :			X	X	X	X		X	X	

RARO-  
TONGA

	1	2	3	4	5	6	7	8	9	10
Ha. 1 :		X	X			X			X	
Ha. 2 :		X				X			X	X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :				X		X			X	X
Ma. 1 :										
Ma. 2 :	X	X	X	X		X	X	X	X	X
Ma. 3 :	X	X		X		X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X	X	X	X		X		X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X	X	X	X	X	X	X
Ra. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 1 :				X		X			X	X
Sa. 2 :						X			X	X
Sa. 3 :						X			X	X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X		X		X	X	X
Ta. 4 :										
Ta. 5 :	X	X		X	X	X	X	X	X	X
Ta. 6 :										
Ta. 7 :	X			X		X		X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X				X	X	X	X	X
To. 1 :										
To. 2 :									X	
Tu. 1 :										
Tu. 2 :	X			X		X	X	X	X	X
Tu. 3 :										
Tu. 4 :	X			X		X	X	X	X	X

<u>RARO-</u> <u>TONGA</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :			X		X	X	X		X	X
Ha. 2 :					X	X	X		X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :					X	X	X		X	X
Ma. 1 :										
Ma. 2 :	X		X		X	X	X			X
Ma. 3 :	X				X	X	X		X	X
Mq. 1 :										
Mq. 2 :	X		X		X	X	X		X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X	X		X	X	X	X		X
Ra. 3 :		X	X		X	X	X	X	X	X
Sa. 1 :						X	X		X	
Sa. 2 :							X		X	
Sa. 3 :						X	X		X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :			X			X	X		X	
Ta. 4 :										
Ta. 5 :	X		X			X	X		X	
Ta. 6 :										
Ta. 7 :	X		X			X	X		X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X		X			X			X	
To. 1 :										
To. 2 :							X		X	
Tu. 1 :										
Tu. 2 :	X		X			X	X		X	X
Tu. 3 :										
Tu. 4 :	X		X			X	X		X	X

<u>RARO-</u> <u>TONGA</u>	21	22	23	24	25	26	27	28	29	30
Ha. 1 :		X		X						X
Ha. 2 :		X		X						X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X								X
Ma. 1 :										
Ma. 2 :	X	X			X		X	X	X	X
Ma. 3 :	X	X	X		X		X	X	X	X
Mq. 1 :										
Mq. 2 :	X	X	X				X		X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X	X	X		X	X	X
Ra. 3 :	X	X	X	X	X	X		X	X	X
Sa. 1 :	X			X						
Sa. 2 :	X									
Sa. 3 :	X			X						
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X	X	X		X					X
Ta. 4 :										
Ta. 5 :	X	X	X	X	X			X	X	X
Ta. 6 :										
Ta. 7 :	X	X	X		X			X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X	X		X				X	X
To. 1 :										
To. 2 :	X		X					X		
Tu. 1 :										
Tu. 2 :	X	X	X		X				X	X
Tu. 3 :										
Tu. 4 :	X	X	X		X			X	X	X

<u>RARO-</u> <u>TONGA</u>	31	32	33	34	35	36	37	38	39	40
Ha. 1 :	X						X			
Ha. 2 :	X						X			
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X	X					X			
Ma. 1 :										
Ma. 2 :	X	X		X		X		X	X	X
Ma. 3 :	X			X	X		X	X		
Mq. 1 :										
Mq. 2 :	X			X	X		X			
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X	X	X	X	X	X	X
Ra. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 1 :							X		X	
Sa. 2 :						X	X			
Sa. 3 :						X	X			
Sa. 4 :									X	
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X			X			X		X	
Ta. 4 :										
Ta. 5 :	X	X	X	X			X			
Ta. 6 :										
Ta. 7 :	X			X	X		X	X	X	
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X		X	X		X	X	X	
To. 1 :										
To. 2 :				X	X					
Tu. 1 :										
Tu. 2 :	X	X		X	X	X	X	X		
Tu. 3 :										
Tu. 4 :	X			X	X	X	X	X	X	

<u>RARO-</u> <u>TONGA</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :					X				X	
Ha. 2 :					X				X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X			X				X	
Ma. 1 :										
Ma. 2 :	X	X		X		X	X	X	X	
Ma. 3 :	X	X		X	X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X	X		X	X	X	X	X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X		X		X	X	X	X	X
Ra. 3 :	X	X	X	X		X	X	X	X	X
Sa. 1 :		X				X		X		
Sa. 2 :										
Sa. 3 :		X								
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X	X		X	X	X	X	X	X	
Ta. 4 :										
Ta. 5 :	X	X		X	X	X	X		X	
Ta. 6 :										
Ta. 7 :	X	X		X	X	X	X	X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X	X		X	X		X		X	X
To. 1 :										
To. 2 :		X								X
Tu. 1 :										
Tu. 2 :	X	X		X	X				X	
Tu. 3 :										
Tu. 4 :	X	X		X		X	X	X	X	X

<u>RARO-</u> <u>TONGA</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :	X				X					X
Ha. 2 :	X				X					X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X				X					X
Ma. 1 :										
Ma. 2 :	X		X			X	X	X		X
Ma. 3 :	X		X	X		X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X		X		X		X	X		X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X			X	X	X	X		X
Ra. 3 :	X	X	X		X	X	X		X	X
Sa. 1 :	X				X		X			X
Sa. 2 :	X				X		X			
Sa. 3 :	X				X		X			X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X									X
Ta. 4 :										
Ta. 5 :	X		X		X	X	X	X		X
Ta. 6 :										
Ta. 7 :	X						X	X		X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :	X		X			X	X	X		X
To. 1 :										
To. 2 :	X						X			X
Tu. 1 :										
Tu. 2 :	X					X	X	X		X
Tu. 3 :										
Tu. 4 :	X						X	X		X

RARO-  
TONGA

	61	62	63	64	65	66	67	68	69	70
Ha. 1 :				X						X
Ha. 2 :				X	X					X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :				X	X					X
Ma. 1 :										
Ma. 2 :	X	X	X					X		X
Ma. 3 :		X		X	X		X	X		X
Mq. 1 :										
Mq. 2 :				X						X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X	X	X	X	X	X	X	X	X
Ra. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 1 :				X		X				
Sa. 2 :				X						
Sa. 3 :					X					
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X	X					
Ta. 4 :										
Ta. 5 :		X		X	X	X				X
Ta. 6 :										
Ta. 7 :			X	X	X		X			
Ta. 8 :										
Ta. 9 :										
Ta. 10 :				X	X		X			X
To. 1 :										
To. 2 :								X		
Tu. 1 :										
Tu. 2 :				X	X			X		X
Tu. 3 :										
Tu. 4 :		X		X	X			X		



RARO-  
TONGA

	71	72	73	74	75	76	77	78	79	80
Ha. 1 :		X				X				
Ha. 2 :			X	X		X			X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X				X			X	
Ma. 1 :										
Ma. 2 :		X	X	X		X	X		X	
Ma. 3 :	X	X	X	X		X			X	X
Mq. 1 :										
Mq. 2 :			X	X		X			X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X	X	X	X	X		X
Ra. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 1 :		X				X			X	
Sa. 2 :						X				
Sa. 3 :		X				X			X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X		X			X				
Ta. 4 :										
Ta. 5 :	X	X	X	X		X			X	
Ta. 6 :										
Ta. 7 :		X	X	X		X			X	
Ta. 8 :										
Ta. 9 :										
Ta.10 :						X				
To. 1 :										
To. 2 :										
Tu. 1 :										
Tu. 2 :	X		X			X	X		X	
Tu. 3 :										
Tu. 4 :			X	X		X				

<u>RARO-</u> <u>TONGA</u>	81	82	83	84	85	86	87	88	89	90
Ha. 1 :		X						X	X	X
Ha. 2 :		X			X	X		X	X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X			X	X		X		
Ma. 1 :										
Ma. 2 :		X			X	X	X	X	X	X
Ma. 3 :		X			X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :			X		X	X	X	X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X	X	X	X	X	X	X	X	X	X
Ra. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 1 :							X		X	
Sa. 2 :										
Sa. 3 :		X								
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :		X			X	X	X	X		X
Ta. 4 :										
Ta. 5 :	X	X			X	X	X	X	X	X
Ta. 6 :										
Ta. 7 :	X	X			X	X	X	X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :			X		X	X	X	X	X	X
To. 1 :										
To. 2 :						X	X			
Tu. 1 :										
Tu. 2 :					X	X	X	X	X	X
Tu. 3 :										
Tu. 4 :					X	X	X	X		X

<u>RARO-</u> <u>TONGA</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :	X			X	X				X	X
Ha. 2 :	X			X	X		X		X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X			X	X		X		X	X
Ma. 1 :										
Ma. 2 :	X		X	X	X	X	X	X	X	X
Ma. 3 :	X		X	X	X	X	X		X	X
Mq. 1 :										
Mq. 2 :	X		X	X	X	X			X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X		X	X	X	X	X	X	X	X
Ra. 3 :	X		X	X	X	X	X	X	X	X
Sa. 1 :	X			X	X				X	X
Sa. 2 :	X			X	X				X	
Sa. 3 :	X			X	X				X	
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X		X	X	X		X		X	
Ta. 4 :										
Ta. 5 :	X		X	X		X	X	X	X	X
Ta. 6 :										
Ta. 7 :	X		X	X	X	X		X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :			X	X	X	X			X	X
To. 1 :										
To. 2 :				X	X		X	X		
Tu. 1 :										
Tu. 2 :			X		X				X	X
Tu. 3 :										
Tu. 4 :			X	X	X	X	X		X	

<u>SAMOA</u>	1	2	3	4	5	6	7	8	9	10
Ha. 1 :						X		X	X	X
Ha. 2 :									X	X
Ha. 3 :										X
Ha. 4 :						X				X
Ha. 5 :						X				X
Ma. 1 :										
Ma. 2 :						X			X	X
Ma. 3 :						X			X	X
Mq. 1 :										
Mq. 2 :			X			X			X	X
Mq. 3 :										X
Mq. 4 :						X			X	X
Ra. 1 :										
Ra. 2 :						X			X	
Ra. 3 :						X			X	X
Sa. 1 :		X		X	X	X		X	X	X
Sa. 2 :										
Sa. 3 :		X	X	X	X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :						X				X
Ta. 2 :										
Ta. 3 :						X				X
Ta. 4 :						X			X	X
Ta. 5 :										
Ta. 6 :						X			X	X
Ta. 7 :						X			X	
Ta. 8 :						X			X	
Ta. 9 :						X			X	
Ta. 10 :						X			X	X
To. 1 :										
To. 2 :						X			X	
Tu. 1 :										
Tu. 2 :						X			X	X
Tu. 3 :						X			X	X
Tu. 4 :						X			X	

<u>SAMOA</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :										
Ha. 2 :			X							
Ha. 3 :										
Ha. 4 :										
Ha. 5 :			X						X	
Ma. 1 :										
Ma. 2 :			X						X	
Ma. 3 :			X						X	
Mq. 1 :										
Mq. 2 :			X						X	
Mq. 3 :										
Mq. 4 :			X	X					X	
Ra. 1 :										
Ra. 2 :			X						X	
Ra. 3 :			X						X	
Sa. 1 :	X		X		X	X	X	X	X	X
Sa. 2 :										
Sa. 3 :			X	X	X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :			X	X					X	
Ta. 2 :										
Ta. 3 :									X	
Ta. 4 :			X						X	
Ta. 5 :										
Ta. 6 :			X						X	
Ta. 7 :			X						X	
Ta. 8 :			X						X	
Ta. 9 :			X						X	
Ta. 10 :			X						X	
To. 1 :	X					X			X	
To. 2 :				X	X	X	X	X	X	
Tu. 1 :			X						X	
Tu. 2 :			X						X	
Tu. 3 :										
Tu. 4 :			X						X	

<u>SAMOA</u>	21	22	23	24	25	26	27	28	29	30
Ha. 1 :			X		X			X	X	X
Ha. 2 :			X		X			X	X	X
Ha. 3 :										
Ha. 4 :			X		X				X	X
Ha. 5 :			X		X			X	X	X
Ma. 1 :										
Ma. 2 :	X	X			X			X	X	X
Ma. 3 :	X	X			X			X	X	X
Mq. 1 :										
Mq. 2 :	X	X	X		X				X	
Mq. 3 :										
Mq. 4 :		X	X		X				X	
Ra. 1 :										
Ra. 2 :	X		X	X	X				X	X
Ra. 3 :			X		X				X	X
Sa. 1 :	X	X	X	X	X	X	X	X	X	X
Sa. 2 :										
Sa. 3 :	X	X	X	X	X	X		X	X	X
Sa. 4 :										
Ta. 1 :	X		X		X				X	X
Ta. 2 :										
Ta. 3 :					X				X	X
Ta. 4 :			X		X				X	X
Ta. 5 :										
Ta. 6 :			X		X				X	X
Ta. 7 :	X			X	X				X	X
Ta. 8 :	X		X		X				X	X
Ta. 9 :	X		X		X				X	X
Ta. 10 :	X		X		X				X	X
To. 1 :	X				X			X		
To. 2 :	X	X	X	X	X				X	
Tu. 1 :	X		X		X				X	
Tu. 2 :	X		X		X				X	X
Tu. 3 :										
Tu. 4 :	X		X		X			X	X	X

<u>SAMOA</u>	31	32	33	34	35	36	37	38	39	40
Ha. 1 :							X			
Ha. 2 :					X					
Ha. 3 :										
Ha. 4 :							X			
Ha. 5 :							X			
Ma. 1 :										
Ma. 2 :					X	X	X		X	
Ma. 3 :					X	X	X			
Mq. 1 :										
Mq. 2 :					X	X	X			
Mq. 3 :										
Mq. 4 :					X	X	X			
Ra. 1 :										
Ra. 2 :					X	X	X			
Ra. 3 :					X	X	X		X	
Sa. 1 :	X	X	X	X	X	X	X	X	X	X
Sa. 2 :										
Sa. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :					X		X			
Ta. 2 :										
Ta. 3 :					X	X	X			
Ta. 4 :					X	X	X			
Ta. 5 :										
Ta. 6 :					X	X	X			
Ta. 7 :					X		X			
Ta. 8 :					X	X	X			
Ta. 9 :					X		X			
Ta.10 :					X		X			
To. 1 :				X		X	X	X		
To. 2 :				X		X	X	X	X	X
Tu. 1 :			X		X	X	X			
Tu. 2 :					X	X	X			
Tu. 3 :										
Tu. 4 :					X	X	X		X	

<u>SAMOA</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :										X
Ha. 2 :		X					X	X		X
Ha. 3 :										X
Ha. 4 :						X				
Ha. 5 :										X
Ma. 1 :										
Ma. 2 :										X
Ma. 3 :										X
Mq. 1 :										
Mq. 2 :								X		X
Mq. 3 :										
Mq. 4 :		X						X		X
Ra. 1 :										
Ra. 2 :						X		X		X
Ra. 3 :						X		X		
Sa. 1 :	X	X		X	X	X	X	X	X	X
Sa. 2 :										
Sa. 3 :	X	X			X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :						X		X		X
Ta. 2 :										
Ta. 3 :		X								X
Ta. 4 :		X								X
Ta. 5 :										
Ta. 6 :								X		X
Ta. 7 :		X			X			X		X
Ta. 8 :					X	X		X		X
Ta. 9 :										X
Ta. 10 :					X					X
To. 1 :				X						
To. 2 :		X		X	X				X	X
Tu. 1 :						X				X
Tu. 2 :		X			X					
Tu. 3 :										
Tu. 4 :		X				X				



<u>SAMOA</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :				X					X	
Ha. 2 :	X				X		X			X
Ha. 3 :										
Ha. 4 :					X					
Ha. 5 :	X									X
Ma. 1 :										
Ma. 2 :						X	X			
Ma. 3 :	X					X	X			X
Mq. 1 :										
Mq. 2 :	X			X	X		X	X		
Mq. 3 :										
Mq. 4 :	X			X		X		X		
Ra. 1 :										
Ra. 2 :	X				X		X			
Ra. 3 :	X				X		X			
Sa. 1 :	X	X	X	X	X	X	X	X		X
Sa. 2 :										
Sa. 3 :	X	X	X	X	X	X	X	X		X
Sa. 4 :										
Ta. 1 :	X									
Ta. 2 :										
Ta. 3 :	X								X	
Ta. 4 :	X									X
Ta. 5 :										
Ta. 6 :	X									X
Ta. 7 :	X					X	X	X		X
Ta. 8 :	X				X	X				X
Ta. 9 :	X			X						X
Ta. 10 :	X						X			X
To. 1 :	X				X	X	X			
To. 2 :			X	X			X			
Tu. 1 :	X				X		X			X
Tu. 2 :	X					X	X			X
Tu. 3 :										
Tu. 4 :	X					X	X			X

<u>SAMOA</u>	61	62	63	64	65	66	67	68	69	70
Ha. 1 :								X		
Ha. 2 :								X		
Ha. 3 :										
Ha. 4 :								X		
Ha. 5 :								X		
Ma. 1 :										
Ma. 2 :	X			X						
Ma. 3 :				X						
Mq. 1 :										
Mq. 2 :	X			X						
Mq. 3 :										
Mq. 4 :	X									
Ra. 1 :										
Ra. 2 :	X			X				X		
Ra. 3 :				X						
Sa. 1 :	X	X	X	X		X	X	X	X	X
Sa. 2 :										
Sa. 3 :	X	X		X	X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :	X			X				X		
Ta. 2 :										
Ta. 3 :	X									
Ta. 4 :				X						
Ta. 5 :										
Ta. 6 :	X			X				X		
Ta. 7 :	X		X	X						
Ta. 8 :	X			X						
Ta. 9 :	X									
Ta. 10 :	X							X		
To. 1 :		X		X						
To. 2 :	X	X	X	X	X	X	X		X	X
Tu. 1 :	X			X				X		
Tu. 2 :	X			X				X		
Tu. 3 :										
Tu. 4 :	X			X						

<u>SAMOA</u>	71	72	73	74	75	76	77	78	79	80
Ha. 1 :						X				
Ha. 2 :		X				X			X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :		X				X				
Ma. 1 :										
Ma. 2 :						X				
Ma. 3 :				X		X			X	
Mq. 1 :										
Mq. 2 :		X				X			X	
Mq. 3 :										
Mq. 4 :				X					X	X
Ra. 1 :										
Ra. 2 :						X				
Ra. 3 :						X			X	
Sa. 1 :		X	X	X	X	X	X		X	X
Sa. 2 :										
Sa. 3 :	X	X	X	X	X	X	X		X	X
Sa. 4 :										
Ta. 1 :						X				
Ta. 2 :										
Ta. 3 :		X				X				
Ta. 4 :		X				X				
Ta. 5 :										
Ta. 6 :						X				
Ta. 7 :		X				X			X	
Ta. 8 :						X				
Ta. 9 :						X			X	
Ta. 10 :						X				
To. 1 :	X			X		X				X
To. 2 :	X			X		X	X			X
Tu. 1 :			X			X				
Tu. 2 :		X	X			X				
Tu. 3 :										
Tu. 4 :		X		X		X				

<u>SAMOA</u>	81	82	83	84	85	86	87	88	89	90
Ha. 1 :		X							X	X
Ha. 2 :		X	X						X	
Ha. 3 :									X	
Ha. 4 :			X						X	
Ha. 5 :		X	X							
Ma. 1 :										
Ma. 2 :		X	X						X	
Ma. 3 :			X							X
Mq. 1 :										
Mq. 2 :						X			X	
Mq. 3 :										
Mq. 4 :										X
Ra. 1 :										
Ra. 2 :									X	X
Ra. 3 :		X								
Sa. 1 :	X	X	X	X	X	X	X	X	X	X
Sa. 2 :										
Sa. 3 :	X	X	X		X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :					X				X	
Ta. 5 :										
Ta. 6 :									X	X
Ta. 7 :									X	
Ta. 8 :									X	
Ta. 9 :		X							X	X
Ta. 10 :									X	
To. 1 :										
To. 2 :	X	X					X	X	X	
Tu. 1 :								X		
Tu. 2 :					X			X	X	
Tu. 3 :										
Tu. 4 :								X	X	

<u>SAMOA</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :			X		X					
Ha. 2 :	X			X	X					
Ha. 3 :										
Ha. 4 :				X	X					
Ha. 5 :	X		X	X	X			X		
Ma. 1 :										
Ma. 2 :	X		X		X			X		
Ma. 3 :				X	X			X	X	
Mq. 1 :										
Mq. 2 :					X			X	X	
Mq. 3 :										
Mq. 4 :			X	X	X			X		
Ra. 1 :										
Ra. 2 :	X			X	X			X	X	
Ra. 3 :	X			X	X			X	X	
Sa. 1 :	X	X	X	X	X	X	X	X	X	X
Sa. 2 :										
Sa. 3 :	X	X	X	X	X	X	X	X	X	X
Sa. 4 :										
Ta. 1 :			X		X			X		
Ta. 2 :										
Ta. 3 :	X		X	X	X			X	X	
Ta. 4 :				X	X			X	X	
Ta. 5 :										
Ta. 6 :			X	X	X			X		
Ta. 7 :	X			X	X			X		
Ta. 8 :				X	X					
Ta. 9 :	X		X	X	X					
Ta. 10 :				X	X			X		
To. 1 :		X		X				X	X	
To. 2 :	X		X	X	X	X	X	X	X	X
Tu. 1 :				X	X			X		
Tu. 2 :				X	X			X	X	
Tu. 3 :										
Tu. 4 :	X		X	X	X			X	X	























<u>TONGA</u>	1	2	3	4	5	6	7	8	9	10
Ha. 1 :										
Ha. 2 :										
Ha. 3 :										
Ha. 4 :										
Ha. 5 :						X				
Ma. 1 :										
Ma. 2 :			X		X					
Ma. 3 :						X				
Mq. 1 :										
Mq. 2 :	X		X		X	X				
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :								X		
Ra. 3 :	X				X	X				
Sa. 1 :	X							X		
Sa. 2 :	X									
Sa. 3 :			X					X		
Sa. 4 :	X							X		
Ta. 1 :										
Ta. 2 :										
Ta. 3 :						X				
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X					
Ta. 7 :					X	X			X	
Ta. 8 :					X	X				
Ta. 9 :					X					
Ta. 10 :					X	X			X	
To. 1 :										
To. 2 :	X		X	X	X	X	X	X	X	X
Tu. 1 :	X		X		X	X				
Tu. 2 :										
Tu. 3 :										
Tu. 4 :					X	X				



<u>TONGA</u>	11	12	13	14	15	16	17	18	19	20
Ha. 1 :							X		X	
Ha. 2 :							X		X	
Ha. 3 :										
Ha. 4 :							X		X	
Ha. 5 :							X		X	
Ma. 1 :										
Ma. 2 :		X					X		X	
Ma. 3 :							X	X	X	
Mq. 1 :										
Mq. 2 :		X					X		X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :							X	X	X	
Ra. 3 :							X	X	X	
Sa. 1 :							X			
Sa. 2 :							X	X	X	
Sa. 3 :				X					X	
Sa. 4 :				X			X		X	
Ta. 1 :										
Ta. 2 :										
Ta. 3 :							X		X	
Ta. 4 :										
Ta. 5 :										
Ta. 6 :							X		X	
Ta. 7 :							X	X	X	
Ta. 8 :							X		X	
Ta. 9 :							X		X	
Ta. 10 :									X	
To. 1 :										
To. 2 :	X	X	X	X	X	X	X	X	X	X
Tu. 1 :							X		X	
Tu. 2 :										
Tu. 3 :										
Tu. 4 :							X		X	

<u>TONGA</u>	21	22	23	24	25	26	27	28	29	30
Ha. 1 :					X		X	X		
Ha. 2 :					X					
Ha. 3 :										
Ha. 4 :							X			
Ha. 5 :					X					
Ma. 1 :										
Ma. 2 :	X		X						X	
Ma. 3 :	X		X		X				X	
Mq. 1 :										
Mq. 2 :	X		X	X	X		X		X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X				X				X	
Ra. 3 :	X		X		X				X	
Sa. 1 :					X		X	X		
Sa. 2 :	X			X	X		X	X		
Sa. 3 :	X				X		X			
Sa. 4 :	X			X	X			X		
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X				X				X	
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X		X			
Ta. 7 :	X				X				X	
Ta. 8 :	X		X		X				X	
Ta. 9 :			X		X				X	
Ta. 10 :			X							
To. 1 :										
To. 2 :	X	X	X	X		X	X	X	X	X
Tu. 1 :	X		X		X				X	
Tu. 2 :										
Tu. 3 :										
Tu. 4 :	X		X		X			X	X	

<u>TONGA</u>	31	32	33	34	35	36	37	38	39	40
Ha. 1 :							X			
Ha. 2 :							X			
Ha. 3 :										
Ha. 4 :							X			
Ha. 5 :							X			
<hr/>										
Ma. 1 :										
Ma. 2 :							X			
Ma. 3 :							X			
<hr/>										
Mq. 1 :										
Mq. 2 :					X		X			
Mq. 3 :					X					
Mq. 4 :										
<hr/>										
Ra. 1 :										
Ra. 2 :					X		X			
Ra. 3 :					X		X			
<hr/>										
Sa. 1 :				X				X		
Sa. 2 :				X			X	X		
Sa. 3 :				X			X	X		
Sa. 4 :				X			X			
<hr/>										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :							X			
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X		X			
Ta. 7 :					X		X			
Ta. 8 :							X			
Ta. 9 :					X		X			
Ta. 10 :									X	
<hr/>										
To. 1 :										
To. 2 :	X		X	X		X	X	X	X	X
<hr/>										
Tu. 1 :					X					
Tu. 2 :										
Tu. 3 :										
Tu. 4 :						X				

<u>TONGA</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :								X	X	
Ha. 2 :								X	X	
Ha. 3 :										
Ha. 4 :									X	
Ha. 5 :									X	
Ma. 1 :										
Ma. 2 :		X								X
Ma. 3 :									X	X
Mq. 1 :										
Mq. 2 :		X						X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :		X						X	X	X
Ra. 3 :								X	X	X
Sa. 1 :								X		
Sa. 2 :			X					X		
Sa. 3 :	X							X		
Sa. 4 :		X						X		
Ta. 1 :								X		
Ta. 2 :										
Ta. 3 :		X								
Ta. 4 :										
Ta. 5 :										
Ta. 6 :		X							X	
Ta. 7 :		X								X
Ta. 8 :									X	X
Ta. 9 :		X								
Ta. 10 :									X	X
To. 1 :										
To. 2 :	X	X	X	X	X	X	X	X	X	X
Tu. 1 :		X								
Tu. 2 :										
Tu. 3 :										
Tu. 4 :		X						X	X	X

<u>TONGA</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :				X						
Ha. 2 :				X						
Ha. 3 :										
Ha. 4 :				X						X
Ha. 5 :				X						
Ma. 1 :										
Ma. 2 :	X			X			X			
Ma. 3 :	X			X						
Mq. 1 :										
Mq. 2 :				X			X			
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :								X		
Ra. 3 :					X			X		
Sa. 1 :	X			X		X	X			
Sa. 2 :	X			X		X	X			
Sa. 3 :	X		X		X	X	X			
Sa. 4 :				X	X	X	X			X
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X									
Ta. 4 :										
Ta. 5 :										
Ta. 6 :										
Ta. 7 :	X					X	X			
Ta. 8 :	X									
Ta. 9 :	X			X				X		
Ta. 10 :	X							X		
To. 1 :										
To. 2 :	X	X	X	X	X	X	X	X	X	X
Tu. 1 :	X					X	X			
Tu. 2 :										
Tu. 3 :										
Tu. 4 :	X						X			

<u>TONGA</u>	61	62	63	64	65	66	67	68	69	70
Ha. 1 :										
Ha. 2 :	X									
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X									
Ma. 1 :										
Ma. 2 :	X					X				
Ma. 3 :						X				
Mq. 1 :										
Mq. 2 :	X			X						
Mq. 3 :										
Mq. 4 :										
Ra. 1 :	X									
Ra. 2 :						X				
Ra. 3 :										
Sa. 1 :										X
Sa. 2 :	X									X
Sa. 3 :	X									X
Sa. 4 :	X									X
Ta. 1 :										
Ta. 2 :										
Ta. 3 :	X									
Ta. 4 :										
Ta. 5 :										
Ta. 6 :										
Ta. 7 :	X					X				
Ta. 8 :	X									X
Ta. 9 :						X				
Ta. 10 :	X									
To. 1 :										
To. 2 :	X	X		X	X	X	X		X	X
Tu. 1 :	X					X				
Tu. 2 :										
Tu. 3 :										
Tu. 4 :	X					X				

<u>TONGA</u>	71	72	73	74	75	76	77	78	79	80
Ha. 1 :										
Ha. 2 :										
Ha. 3 :										
Ha. 4 :										
Ha. 5 :										
Ma. 1 :										
Ma. 2 :					X					
Ma. 3 :										
Mq. 1 :										
Mq. 2 :										
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :										
Ra. 3 :										
Sa. 1 :						X				
Sa. 2 :						X				
Sa. 3 :						X				
Sa. 4 :						X				
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :					X					
Ta. 7 :					X					
Ta. 8 :					X					
Ta. 9 :										
Ta. 10 :					X					
To. 1 :										
To. 2 :	X	X		X	X	X	X	X	X	X
Tu. 1 :										
Tu. 2 :										
Tu. 3 :										
Tu. 4 :					X					

<u>TONGA</u>	81	82	83	84	85	86	87	88	89	90
Ha. 1 :								X	X	
Ha. 2 :								X		
Ha. 3 :										
Ha. 4 :								X		
Ha. 5 :								X		
Ma. 1 :										
Ma. 2 :							X	X	X	
Ma. 3 :				X				X		
Mq. 1 :										
Mq. 2 :								X	X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :				X			X	X	X	
Ra. 3 :				X			X	X		
Sa. 1 :									X	
Sa. 2 :									X	
Sa. 3 :									X	
Sa. 4 :									X	
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X			X	X		
Ta. 4 :										
Ta. 5 :										
Ta. 6 :							X	X	X	
Ta. 7 :		X					X	X		
Ta. 8 :							X	X		
Ta. 9 :								X	X	
Ta.10 :							X	X		X
To. 1 :										
To. 2 :		X	X	X	X	X	X	X	X	X
Tu. 1 :							X		X	
Tu. 2 :										
Tu. 3 :										
Tu. 4 :							X		X	



<u>TONGA</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :										
Ha. 2 :					X					X
Ha. 3 :										
Ha. 4 :				X						
Ha. 5 :				X						
Ma. 1 :										
Ma. 2 :				X	X			X		
Ma. 3 :				X						
Mq. 1 :										
Mq. 2 :				X	X				X	
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :				X				X		
Ra. 3 :				X					X	
Sa. 1 :			X	X						X
Sa. 2 :				X						X
Sa. 3 :			X	X						X
Sa. 4 :			X	X		X	X	X		X
Ta. 1 :										
Ta. 2 :										
Ta. 3 :				X	X					
Ta. 4 :										
Ta. 5 :										
Ta. 6 :				X	X					
Ta. 7 :				X	X			X		
Ta. 8 :				X						
Ta. 9 :				X						
Ta.10 :				X						
To. 1 :										
To. 2 :	X	X	X	X	X	X	X	X	X	X
Tu. 1 :				X	X		X			
Tu. 2 :										
Tu. 3 :										
Tu. 4 :				X						











<u>TUAMOTU</u>	51	52	53	54	55	56	57	58	59	60
Ha. 1 :	X						X			
Ha. 2 :	X									
Ha. 3 :										
Ha. 4 :	X									
Ha. 5 :	X									
Ma. 1 :										
Ma. 2 :	X	X	X	X	X	X	X	X	X	X
Ma. 3 :	X		X		X	X	X	X	X	X
Mq. 1 :										
Mq. 2 :	X				X		X		X	X
Mq. 3 :										
Mq. 4 :										
Ra. 1 :										
Ra. 2 :	X						X	X		X
Ra. 3 :	X						X		X	X
Sa. 1 :						X	X			
Sa. 2 :							X			
Sa. 3 :	X					X	X			
Sa. 4 :										
Ta. 1 :										
Ta. 2 :										
Ta. 3 :										
Ta. 4 :										
Ta. 5 :										
Ta. 6 :	X								X	
Ta. 7 :	X				X	X	X	X	X	X
Ta. 8 :										
Ta. 9 :										
Ta. 10 :										
To. 1 :										
To. 2 :	X					X				
Tu. 1 :										
Tu. 2 :										
Tu. 3 :										
Tu. 4 :	X	X		X	X	X	X	X	X	X











<u>UVEA</u>	1	2	3	4	5	6	7	8	9	10
Ha. 1 :						X		X	X	
Ha. 2 :						X			X	
Ha. 3 :										
Ha. 4 :										
Ha. 5 :						X				

---

Ma. 1 :  
Ma. 2 :  
Ma. 3 :

---

Mq. 1 :  
Mq. 2 :  
Mq. 3 :  
Mq. 4 :

---

Ra. 1 :  
Ra. 2 :  
Ra. 3 :

---

Sa. 1 :	X	X			X	X			X	
Sa. 2 :		X				X			X	
Sa. 3 :	X	X	X			X		X	X	
Sa. 4 :										

---

Ta. 1 :  
Ta. 2 :  
Ta. 3 :  
Ta. 4 :  
Ta. 5 :  
Ta. 6 :  
Ta. 7 :  
Ta. 8 :  
Ta. 9 :  
Ta.10 :

---

To. 1 :										
To. 2 :	X			X	X	X			X	X

---

Tu. 1 :  
Tu. 2 :  
Tu. 3 :  
Tu. 4 :

---











<u>UVEA</u>	41	42	43	44	45	46	47	48	49	50
Ha. 1 :					X	X			X	
Ha. 2 :		X			X	X			X	X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :					X	X			X	

---

Ma. 1 :  
Ma. 2 :  
Ma. 3 :

---

Mq. 1 :  
Mq. 2 :  
Mq. 3 :  
Mq. 4 :

---

Ra. 1 :  
Ra. 2 :  
Ra. 3 :

---

Sa. 1 :		X				X		X		X
Sa. 2 :		X			X	X		X		
Sa. 3 :						X				
Sa. 4 :										

---

Ta. 1 :  
Ta. 2 :  
Ta. 3 :  
Ta. 4 :  
Ta. 5 :  
Ta. 6 :  
Ta. 7 :  
Ta. 8 :  
Ta. 9 :  
Ta. 10 :

---

To. 1 :										
To. 2 :		X	X	X			X	X		X

---

Tu. 1 :  
Tu. 2 :  
Tu. 3 :  
Tu. 4 :

---



<u>UVEA</u>	61	62	63	64	65	66	67	68	69	70
Ha. 1 :	X				X					X
Ha. 2 :	X				X	X				X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X				X					X

---

Ma. 1 :  
Ma. 2 :  
Ma. 3 :

---

Mq. 1 :  
Mq. 2 :  
Mq. 3 :  
Mq. 4 :

---

Ra. 1 :  
Ra. 2 :  
Ra. 3 :

---

Sa. 1 :                   X  
Sa. 2 :  
Sa. 3 :    X                X  
Sa. 4 :

---

Ta. 1 :  
Ta. 2 :  
Ta. 3 :  
Ta. 4 :  
Ta. 5 :  
Ta. 6 :  
Ta. 7 :  
Ta. 8 :  
Ta. 9 :  
Ta. 10 :

---

To. 1 :  
To. 2 :    X    X                    X

---

Tu. 1 :  
Tu. 2 :  
Tu. 3 :  
Tu. 4 :

---





<u>UVEA</u>	91	92	93	94	95	96	97	98	99	100
Ha. 1 :	X			X	X					X
Ha. 2 :	X			X	X					X
Ha. 3 :										
Ha. 4 :										
Ha. 5 :	X		X	X						X

---

Ma. 1 :  
 Ma. 2 :  
 Ma. 3 :

---

Mq. 1 :  
 Mq. 2 :  
 Mq. 3 :  
 Mq. 4 :

---

Ra. 1 :  
 Ra. 2 :  
 Ra. 3 :

---

Sa. 1 :	X		X	X	X	X		X	X	X
Sa. 2 :	X		X	X				X	X	X
Sa. 3 :	X		X	X	X			X	X	
Sa. 4 :										

---

Ta. 1 :  
 Ta. 2 :  
 Ta. 3 :  
 Ta. 4 :  
 Ta. 5 :  
 Ta. 6 :  
 Ta. 7 :  
 Ta. 8 :  
 Ta. 9 :  
 Ta. 10 :

---

To. 1 :										
To. 2 :		X	X	X	X	X		X	X	

---

Tu. 1 :  
 Tu. 2 :  
 Tu. 3 :  
 Tu. 4 :

---

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