JAN 69

ZERO BEAT

HEADQUARTERS MARINE CORPS HENDERSON HALL ARLINGTON, VIRGINIA 22214

ZERO BEAT PUBLICATION. HEADQUARTERS MARINE CORPS HENDERSON HALL, ARLINGTON, VIRGINIA. 22214

EDITORIAL

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★★★★★★★
features

★★★★★★★★★★
departments

NEWS&VIEWS

NØXXN-W4BHU.....
MCAS BEAUFORT, S.C.

Our Dailey Phone-patch scheds with NOFJM, Cuba, will be boosting our traffic count considerably. Still tinkering with the RTTY, all ready to go except a faulty reperf.

A part time addition to our one man crew is lst Lt. Cecil Thorton WA5JNS He's a great TTY mechanic and also gives the station some "extra horse power"

73's fer now DON CHOP NØXXN

NØASM/NAV2-W4NTR.....
HEADQUARTERS MARINE CORPS,
ARLINGTON, VIRGINIA.

This station now has a new CHOP, which goes by the name of Gy/Sgt Wayne Justis alias "Little J" Its not known at this time if this is good or bad, the jr operators are still a bit wary and once in a while you can here a Aye Aye SIR ring out strong.

After much work and modification of a KY79 tone keyer it is now possible for us to use in emergency the telephone lines to relay our teletype traffic. We are hoping to run a article in ZERO BEAT in the near future, on the conversion of this keyer.

As everyone knows, the month of Dec is a good month for traffic and we here at NAV2 were glad to help with the load. Jan. is a good month to "catch up" with sleep anyway hi. We wish to thank all stations for the help and cooperation that was received here at Headquarters.

A Bystander.

DO GOOD TO THY FRIEND TO KEEP HIM, TO THY ENEMY TO GAIN HIM. FRANKLIN

NØRTP-W4PFC.....
MCB QUANTICO, VIRGINIA.

This station now has 3 operators, they are:

Gy/Sgt Calvin J. Willard WA4GUV-NØLGO
S/Sgt Ronald H. Ignowski WAØIMM-NØOCE
Cpl Stanley J. Siems WAØBYF-NØOCD

We have recieved from NØASD a BC-339-L 2KW CW Transmitter which we hope to have operational during January which should strengthen our RTTY signal somewhat Hi.

Also in our posession is a 3-30 MHZ log periodic but we are awaiting two guy brackets from Hy-Gain before it can be installed. no handle

---

NØRTW-W6ZJB.....
MARINE CORPS SUPPLY CENTER,
BARSTOW, CALIFORNIA.

The propagation on 10 and 15 meters from way out here is lousy. It picked up a bit towards the end of the month but we weren't able to handle as much holiday traffic as we'd have liked. We hope Santa Claus was as good to everyone as he was to us. 73's WERG

NØFJM-KG4AM.....
MARINE BARRACKS, GUANTANAMO BAY, CUBA.

Now have the Henry 4K and operational. I just completely rewired the consol and will install the rest of the equipment in the other room. With a new PTO unit for the 75S3, I will have two complete positions operating. I have requested an additional low freq for phone patching because 16.3 fades out in the evening and 6970 is well used by the 6th District. This new frequency will surely be welcomed. Bill CHOP NØFJM

NØENV-KA5MC.....
MCAS, IWAKUNI, JAPAN.

All of us here had a very Merry Christmas even though we managed to keep purselves in shap to declare it a working day. It wasn't white but then who would have known the difference.

Phil Licciardi is due to go home to N.Y.in about 13 days and is most anxious to experience the uniting moment when he meets his wife at the airfield.

Roger and Mary have found a place in town and accepted the honors of a New Year party!. Bill and Kathy, unfortunate ly were unable to attend due to a touch of the flu.

Snow has begun to fall here, but does little to discourage bicycle riding The days have been long here since the establishment of RTTY, more bugs than Orkin. 73 Bill/Kathy Roger/Mary Phil.

THOUGHT FOR THE MONTH via SARA SLIP

The body of any organization has four kinds of bones:

1. the WISHBONES...who spend all their time wishing someone else would do all the work
2. The JAWBONES...who do all the talking but little else
3. The KNUCKLEBONES...who knock everything that everybody else tries to do, and
4. The BACKBONES...who get under the load and do the work.

20TH CENTURY ROYALTY—Lovely Stacey King is one of the beautiful young starlets at 20th Century-Fox Films and an intriguing addition to our file of pin-up pulchritude.

HELP

K6MCA

MARINE CORPS BASE
TWENTYNINE PALMS, CALIFORNIA
92277

I am in the process of compiling a Historical Folder for this station. I am trying to locate any or all of the operators who have ever worked in this Amateur Radio Station K6MCA since its creation.

I would like to have the full names, rank, and time each operator worked at K6MCA, period (month and year) worked, personal call sign, retired or active duty status at present time. Also, if anyone should have photographs of the station from time to time, personel awards received during their tour of duty here etc., I would like to get a copy of them or if they will send them to me at the station, I will have them reproduced and the original copies returned to the individual at the earliest possible date.

To date, I have researched approximately 17 persons who have been at the station since 1958. There is still a large gap between 1954 and 1965 though. Evidently, I am still missing quite a few people to complete the listing.

Once this folder is completed, I hope to have a writeup in the local newspaper on the history of the station for publicity purposes.

Thankyou very much for the assistance, hope we can get as good results as I think we will from ZERO BEAT. It sure seems to have good coverage.

Any replies may be directed to:

GySgt William E. Reed
Special Services, Support Co.
H&S BN., MCB
Navy MARS/Amateur Radio Station
Twentynine Palms, California 92278

ORDERS 8981

VIA CWO JOSEPH A. VAN BROCKLIN NØASB

Asst. Chief, Navy-Marine Corps MARS/
Marine Liaison. 5827 Columbia Pike
Bailey Crossroads, Virginia. 22041

ORDERS FOR JANUARY 1969 ZERO BEAT

LANCE MSGT WES WILSON FR NAV2 TO NØEFB DUR JAN 69
GYSGT BOB CONNELLY FR NØEFB TO MCAS, QVA DUR FEB 69
SSGT DON WEST FR NØAMC TO WPAC FOR DU W/MARS DUR JAN 69
SSGT DAVE LITTLETON FR NØEFB TO NØENV DUR MAR 69
SGT H. W. JOHNSON FR NØTEF TO HOME DUR JAN 69
CPL STEVE WILLEY FR NØEFC TO NØTEF ON BOARD

WORLD WIDE MARINE CORPS TRAFFIC NET. ?

4th month printed
Is there a net???

WANTED: A neoteric author, who will report monthly to ZERO BEAT on W.W.M.C.T.N. activities.

REQUIREMENTS: Able to read and write (somewhat), and fill ¼ to ½ of a page with "OUR" Net's activities.

UHF VHF AND MARS

ROGER A. SMITH NØAJD

254 FRANKLIN DRIVE,
BEREA, OHIO. 44017

SIGNALING IN THE LAND MOBILE SERVICE OR 'GET THAT MAN'

Signaling or selective calling is used in many forms in the Public Safety, Industrial and Land Transportation Services. There seems to be as many ways of signaling as there are manufactures to make them. Basicly, there are two broad catagories of signaling. This month we will discuss the first catagory which we will call "system separation" or tone squelching. Next month we will go into the selective calling in its various forms.

Contrary to what others may say, tone squelching is a form of signaling because if all systems on a frequency are simularly equipped, the base station of one system is "selectively calling" his mobiles. Each system just uses a different tone frequency. There are two methods of tone squelching.

The first method involves using a "tone burst" at the begining of a transmission to unlock receivers that are equipped with a tone sensing devise or "decoder." The tone burst usually lasts a few hundred milliseconds and can not be heard. The tone frequency is usually in the mid range of the voice spectrum(300 -3000). So a tone around 1500HZ is impressed on the carrier for a short time and the receivers hears this and opens up the audio circuits in the receiver. This allows a mobile system operating with other users (this covers about 99% of all freq with crowding the way it is) to call only his mobiles and increase the chances of the mobile hearing him because he will only hear calls preceded by this tone burst. This can work one way (base to mobile) or two way. Two way seems to be more common now. There are a number of drawbacks to this method. The first and most obvious is that the mobile can be going under a underpass etc and not get the tone burst and thus miss the call. Of course in a two way system this could happen both ways. Another drawback is that it is not a positive method and other channel use can false the decoder or if once activated and the base signal is lost it must receive a tone again. One advantage is that it is less costly than the second method we will discuss. No filters are needed and it can be added to an existing system more easily. A further application discussed next month will explain how this is the most basic of true "selective calling" by different frequencies.

The second method was developed because of the drawbacks in the first method, falsing and intermittent operation. In this method the tone is impressed on the carrier all of the time. This requires the use of filters in the receiver so that the tone will not be heard. For this reason sub audio tones (below 200HZ) are normally used. This makes it easier to filter. This method just about eliminates falsing and because the tone is always there signal dips do not reset the decoder. Different manufacters call this different names. For General Electric it is channel guard; for Motorola it is private line, and for RCA it is quiet channel; It is the same thing, only different name and for some

 CONTINUED ON NEXT PAGE

strange reason the tones are not normally compatable. (sounds like some amateur equipment). Tones can be special ordered to fit into another system. One more thought about tone squelching and that is that because a user has this, does not give him the right to transmit on top of someone else because he simply can not hear him. For this reason most manufactures supply a disable device on the mike hang up clip or mike stand to temporary disable the tone squelch so to monitor the freq prior to transmitting. I have run into systems already where this is not done and where it had made other users very angry to say the least. In systems without the disable device users will clobber other communications going on (sort of saunds like some NAVMARS members might be using tone squelching, doesnt it).

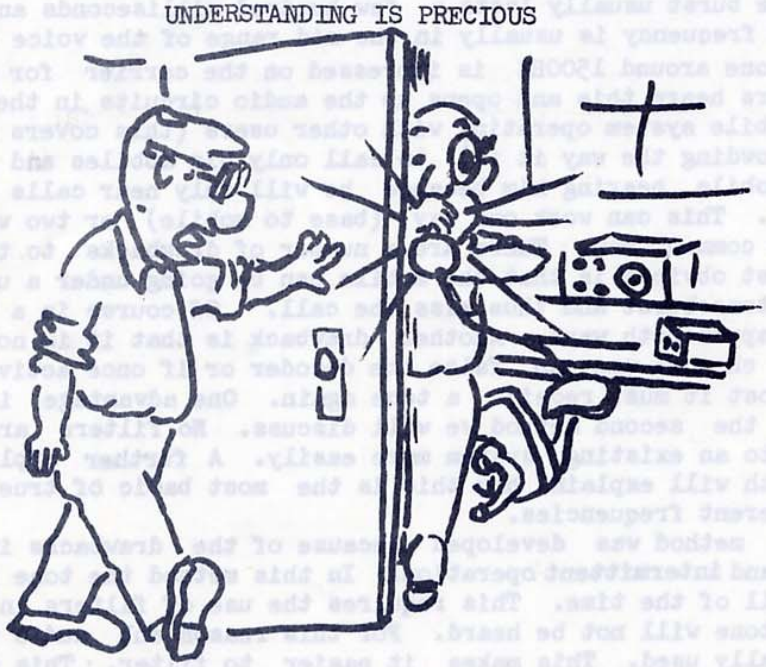
Signaling in the land etc

next month: selective call

see you next month you Gung Ho marines

Smitty

UNDERSTANDING IS PRECIOUS



TAKE THAT MIKE OUT OF YOUR MOUTH FOOL

★OKINAWA★

AMATEUR RADIO-MARS COORDINATOR

GYSGT Wiles B. Danson Jr.

I am waiting patiently for the outcome of our present operation christened "Reopen KR6MD". This is the station located at Camp Hauge which has been closed for the past few years. The building was in pretty bad shape but now we have new windows and doors in the station. I submitted a work request to have the electrical service, water power and sewage installed back into working condition. Once this is done and I recieve the OK from Higher Up the Camp Hauge Station KR6MD will be on the air once again. We have the operators and the equipment to make this a top station in our system. Kr6MD will become the teletype center of the Camp S.D. Butler system.

Ssgt Delperdang arrived the 20th of December and is now operatoring up at the Camp Hansen Station KR6MH until the Camp Hauge Station KR6MD is all set to go on the air, then Ssgt Delperdang will be the NCOIC of KR6MD. SSgt Delperdang was priviously operatoring at W6IAB/NØRSE at MCB Camp Pendleton Calif. All we can say now is "Welcome Aboard" Del.

CPL John Hury WA6NZB was transferred from Camp Hansen down to my station at Camp Mctureous KR6DI. With him operating the station, it allows me more time to do my job as the Coordinator of the Camp S.D. Butler Amateur Radio System.

PFC D.W. Gwaltney K3RBR, the chief operator of the Camp Schwab Station KR6MB, recieved a Letter of Appreciation from the Commanding Officer of the Naval Hosipital located on Guam.

While recovering from wounds recieved in RVN, PFC Gwaltney worked the Guam Amateur Radio Station and well over 500 Phone Patches for the men in the Hospital. A job well done by PFC Dennis Gwaltney.

CONTINUED OKINAWA AMATEUR RADIO-MARS COORDINATOR.....

The Camp Hansen KR6MI also recieved a letter of Appreciation from Major Stingley. This award was bestowed on the station for their services of running over-sea phone patches for both men stationed here on Okinawa and the men either on the way to RVN or CONUS. Major Stingley also noted the courteous manner of operation showed by the men working in the station not only to the Major himself but to every service man who calls the station. Another job well done by the Marines in th Amateur Radio System on Okinawa.

I was thinking of having the Camp Courtney Station KR6CP reopened and used as the main office for the Coordinator. This station would also be used to monitor the signals of the other stations in the system. Of course, this is nothing definite and secondary to the Camp Hauge Station.

We recieved three of our Linear Amplifiers back from our local repair contact here on Okinawa. We hope these Henry 2K-2s will be as good as new when we first put them on the air.

We also have another new operator PFC William Driscoll who joined our system on the 24th of December and will be working down here at KR6DI for the present. He is the son of our San Diego Contact WA6KMI Dave Driscoll. If he is as half as good as his fathe we will surely have one heck of an operator -HI.

We have a 16 Channel Multiplex Transmitter OA-2094/EGC-3. and a 16 Channel Multiplex Reciever OA-2095/EGC-3. This seems to be a very fine piece of equipment and we would like to put it in our Teletype System and be ready to run Multiplex with some of the other MARS Systems when they get their gear on the air. The problem is that we do not have an instruction book. Can someone help us out or let us know where to get one?

I would like to pay my regards to all the Staff and workers of ZERO BEAT and all the men who take alittle more of their time to sit down and tell the rest of our MARS/AMATEUR Stations around the world just what is going on at our own Stations. Keep it up gentlemen, it all makes for very nice reading.

The operators did a very nice job on Christmas and New Year's Holidays and a job well done to them all.

Well thats all from "The Rock" for this month. Take care and kept your fingers crossed for the Camp Hauge Station.

NØGAN HAWAII

ALOHA:

As the year 1968 draws to a close, I suppose the proverbial "WELL DONE" is in order. By the time you read this, the new year will have come upon us. As you know, in our present society we make what is known as a "NEW YEARS RESOLUTION" and I know there are those of us in the system that could do just that. First thing's first though. As this year 1968 comes to a close, I, as a member of a very small but growing organization known as NAVY-MARINE CORPS MARS wish to take this opportunity to thank from the very bottom of my heart those in "OUR" system who have demonstrated by their obvious active participation the real desire to make a go of the "MARS" system within the Marine Corps. As you all know, the system has come along way (BUT) it has a long way to go before it is truly accepted and it's very being and value realized be various powers that be on a local level. It is up to us, all of us who are active in the system as 8981's to do our very best to make sure the system is noticed. By our good act's I might add. Just the very nature of each person being different will give us the element of which no one want's to talk about but it does hurt "OUR PROGRAM" and to those individuals I would like to remind the following A New Years Resolution to try and do the best for the system not for yourself. You know gang, the U.S. Army has their Special Forces, our U.S. Navy has their Seal Teams and the U.S. Marine Corps has it's Force Recon. There are many working adjectives one can find to express the reason for the very successful team work of these respective unit's. I know that PRIDE and DEDICATION goes hand-and-hand to make a go of any given situation. To those operators in the system, and there are those that do what I am about to say. Those operators that turn the antenna 18Ø out of phase just to secure early or de-tune the transmitter or turn off the linear to get the same effect, to leave the in-country stations with the impression that the band if in fact is good, is going out. To those individuals I want you to take stock of yourself and try to give "YOUR" system an even break. I am

very, very busy in the system but with all the work I might be doing, I still feel that there are many way's of doing the job but it seem's that to give alittle more to the men serving in Vietnam comes pretty hard to some of us because it is so very, very easy to make arrangement's to either go "QRT" or program our station to operate at the convenience of the individual and not properly as the system is meant to be programed. With that gentleman, I do want to wish all of you a very Happy New Year from the gang here in Hawaii. We don't know what will come nor what we all will be called upon to do in the system but working together and with the help of God, we can have a very effective and successful 1969.

73s

Dick

NØGAN @ NØJWW

TOO HOT TO HANDLE

I would get on the stick and get some more Gateway Stations. All our freq sound like a DX pile-up in the Ham bands QRZ Contest. Gy/Sgt C.N. BONI CHOP NØefa

IT WOULD BE A WONDERFUL WORLD IF WE ALL WOULD SMILE WITH AS MUCH SINCERITY AS WHEN A DOG WAGS HIS TAIL.

FOR SALE

SWAP

TRADE

WANT

ETC.

NEED: FOR BURKLEY COUNTER FR-67/U, 1 Manual, and Decimal Counter Plug BOX 700A
Contact Al W3VR

* * * *

WANT: SWEEP GENERATOR to 500mhz on fundamentals. Lab quality, cash or trade.
Contact Bob @ ZERO BEAT

RTTY. CRASH

TELETYPE CORNER.

SGT ROBERT E. JAMES

A FEW WORDS ON TAPE RELAY PROCEDURES.....

After observing the traffic that has come through this station in the past few months we believe it is about time for an article of this nature.

First we will define some of the terms used and some of the things we are concerned with in drafting up a message and then show how they are used by presenting a sample message. These definitions and examples have been taken from Chief, NAVMARS letter 129-68.

Channel Number - A combination of letters and figures used to identify a transmission on a channel between two stations. It consists of the following components in sequence:

a. Station and Channel designator-2 letters which identify the station and one letter to identify a channel between two stations (example - SME--NØASM on channel E).

b. Channel Serial-Three numerical characters which serve to sequentially number each transmission and which start at ØØ1 on a daily basis or as mutually agreed by the participating stations.

End of Message Indicator (EOM) NNNN - An indicator used to terminate a transmission in tape relay systems.

Misrouted Message-A message bearing an incorrect routing instruction.

Missent Message - A message which bears the correct routing instruction, but which has been transmitted to a station other than that indicated.

Open Number - A channel serial for which a transmission bearing a corresponding number has not been received.

Pilot - Instructions appearing in message format line 1 relative to the transmission or handling of that message.

Retransmission (rerun) - A repetition of a previously transmitted message.

Routing Indicator - A group of letters assigned to identify a station or area within the navy MARS tape relay network to facilitate routing of traffic.

a. Station Routing Indicator-The assigned Navy MARS Station call sign using the letter oscar vice zero.

b. Area Routing Indicator-The assigned Navy MARS call sign, as listed in DNC-8 SUPP-1, using the letter oscar vice zero as follows:

1. Within a Navy MARS District, the call sign of the District Director

2. Outside of a Navy MARS District, the call sign of the Area Coordinator. (Note: Because of the volunteer nature of Navy MARS, specific message delivery responsibility can n9t be assigned except those between Major and Primary Relay Stations. Therefore, area routing indicators shall be used in format line two for delivery responsibility except in case of messages between Major and Primary Relay Stations. Station routing indicators shall be used only in format line three (DE line).

Service Message - A brief, concise message between operating or supervisory personnel at stations pertaining to a phase of traffic handling, status of communication facilities, circuit conditions, or other matters affecting communication operation.

Start of Message Function (SOM) - The key functions 5 spaces, 2 carriage returns 1 line feed which in a tape relay or teleprinter message, immediately precede the repeated precedence prosign. In tape relay procedure, the start of message function is preceded by the transmission identification.

Station Serial Number - A message reference number assigned within a station. It will normally consist only of a number alloted in sequence.

- -

Message originated by NOEFB addressed to NOASA and sent over channel A to NOASL:

FBAØØ1	(5 spaces)(2 CR)(1 LF)
RR NOASA	(2 CR)(1 LF)
DE NOEFB 1Ø1	(2 CR)(1 LF)
R Ø1ØØØ1Z JAN 68	(2 CR)(1 LF)
FM NØEFB	(2 CR)(1 LF)
TO NØASA	(2 CR)(1 LF)
BT	

Line 1 -- Channel Number (FBAØØ1); NØEFB (FB), channel A (A), Channel Serial (ØØ1)
Line 2 -- Repeated precedence (RR), and Area Routing Indicator (NOASA)
Line 3 -- This is (DE), Station Routing Indicator (NOEFB), Station Serial (1Ø1)

THESE FIRST THREE LINES ARE THE ONLY ONES WHICH DEVIATE FROM NORMAL RATT MESSAGE FORMAT.....

The same message as above but relayed by NOASL to NORSE over channel B:

SLBØØ9FBAØØ1	(5 spaces)(2 CR)(1 LF)
RR NOASA	(2 CR)(1 LF)
DE NOEFB 1Ø1	(2 CR)(1 LF)
R Ø1ØØØ1Z JAN 68	(2 CR)(1 LF)
FM NØEFB	(2 CR)(1 LF)
TO NØASA	(2 CR)(1 LF)
BT	(2 CR)(1 LF)

ROUTING MESSAGES

When two or more addressees of a message are served by a single station or, are within the same area, the routing indicator of that area shall appear only once in the routing line. (i.e. a message addressed to NAV, NØASA, NØASB, only NOASA need appear in the routing line).

When a collective address such as NØALD is used, the individual routing indicators for the areas in which the addressees are located shall appear in the routing line.

ERROR CORRECTION

Errors made in the heading during tape preparation shall be corrected by DISCARDING THE INCORRECT TAPE AND PREPARING A NEW ONE.

Errors made in the text shall be corrected by backspacing and obliterating (lettering out) the incorrect portion.

In keyboard operation, the normal error prosign of 8 E's shall be used.

ROUTING MULTIPLE CALL MESSAGES

In multiple call messages, all routing indicators associated with a single relay station shall be grouped together in the routing line. They shall not be intermingled indiscriminately.

RELAY OF MULTIPLE CALL MESSAGES

Relay of multiple call messages is accomplished by routing line segregation:

Each multiple call message starts out from the originating station as a single transmission containing in the routing line all the routing indicators required to effect transmission to all Navy MARS stations responsible for delivery or refile of the message to any of the addressees.

Each subsequent station is responsible for ensuring that the message is forwarded so as to effect delivery to all stations/areas called in the routing line of the transmission received by that station.

At the first and each succeeding relay station, the routing line of the received transmission is examined to determine the transmission path(s) that the message will take from that station.

Each relay station which must forward the message over more than one transmission path shall segregate the routing line. Each new transmission shall contain in its routing line only those routing indicators pertinent to that transmission In this process, no extraneous characters shall be inserted to replace routing indicators which have been deleted. If practicable, transmission instructions appearing in the received message which are not pertinent to a particular onward transmission shall be removed.

Each terminal station received the message as a single call message except when a simultaneous transmission is made to two or more stations on a multi-station circuit.

TRAFFIC CONTINUITY

The responsibility for the continuity of received numbers rests with the station receiving the traffic. It is the responsibility of the receiving operator to ensure that a transmission is redeived under each number and that numbers are not duplicated or omitted. Open numbers shall be reported as they occur.

PILOTS

Missent messages are relayed onward without affixing a pilot. A misrouted message shall be forwarded with a pilot consisting of the following

a. The appropriate precedence.
b. The correct routing indicator of the station to effect delivery or refile.
c. The operating signal ZOV
d. The routing indicator of the station preparing the pilot

Pilots immediately precede the routing line with no channel numbers or extraneous characters between them.

Taking some pains when preparing messages for transmission and a little study to ensure that one is preparing the message correctly will reduce delivery time by many hours and in some cases by days. REMEMBER the following objectives pertaining to communications:

1. RELIABILITY
2. SECURITY
3. SPEED

IN THAT ORDER AND NO OTHER!!!!!!!!!!!!!!!!!!!!!!

Traffic reports for December....for NØALM

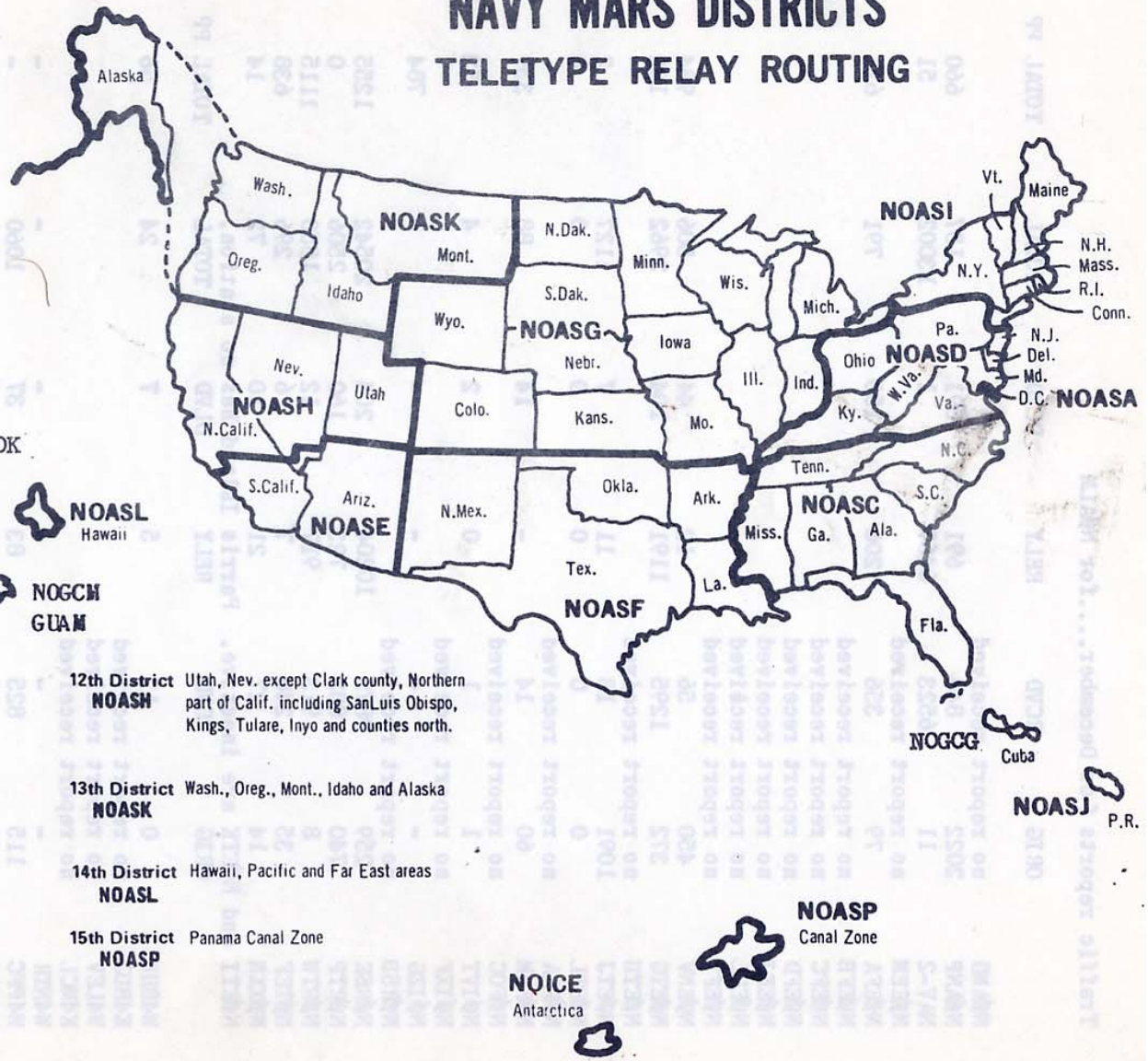
	ORIG	RCVD	RELY	DLVD	TOTAL	TOTAL PP
NØAMD	no report received					
NØANP	2022	848	691	691	157	660
NAV-2	11	6523	6469	1	13002	51
NØEEM	no report received					
NØEFA	79	356	206	150	791	621
NØEFB	no report received					
NØEFC	no report received					
NØEFD	no report received					
NØEFJ	no report received					
NØEFL	no report received					
NØEFY	no report received					
NØENV	450	56	12	44	506	984
NØETG	372	1295	1191	104	2962	132
NØETH	no report received					
NØETJ	1091	18	11	7	1127	2
NØETL	0	0	0	0	0	0
NØFAA	no report received					
NØFJM	60	14	-	14	88	339
NØFOC	no report received					
NØIVT	1	1	0	2	4	53
NØIXF	no report received					
NØIZG	-	-	-	-	-	784
NØRSB	no report received					
NØRSE	259	9875	10204	204	20542	1255
NØRTP	740	883	723	160	2506	0
NØRTW	8	913	917	12	1850	1115
NØTEF	35	248	7	6	296	638
NØXXN	14	27	21	10	72	14

NØETI and NØETK are inactive. Parris Island has no station.

	ORIG	RCVD	RELY	DLVD	TOTAL	TOTAL PP
W4BHU	0	12	5	7	24	56
K4BUJ	no report received					
W4LEV	no report received					
K4MCL	no report received					
W4NTR	-	-	-	-	-	-
W4PFC	115	825	83	37	1060	-
KG4AM	63	5	-	5	73	620
KP4AZJ	28	1	0	1	30	1180
KA5MC	not applicable in Japan. No third party agreements.					
W6FCS	no report received					
W6IAB	23	35	59	20	137	296
K6MCA	226	66	39	2	333	365
W6YDK	5504	631	436	195	6766	74
W67JB	-	-	-	-	-	-
KH6AJF	no report received					
KH6BGS	-	-	-	-	-	56
KR6DI	13	0	13	0	26	403
KR6GF	4	0	0	1	5	1154
KR6MB	0	0	0	0	0	660
KR6MH	no report received					

NAVY MARS DISTRICTS

TELETYPE RELAY ROUTING



(16)

3rd District **NOASI** Maine, N.H., Vt., Mass., R.I., Conn., N.Y., Northern N.J. including the counties of Monmouth, Middlesex, Somerset and counties north.

4th District **NOASD** Southern N.J. including counties of Mercer, Burlington, Ocean and counties south, Pa., Del., Md., W.Va., Va., Ky., and Ohio

6th District **NOASC** N.C., S.C., Ga., Fla., Tenn., Ala., and Mississippi

8th District **NOASF** La., Ark., Okla., Tex., and N.M.

9th District **NOASG** Mich., Ind., Ill., Wisc., Minn., Iowa, Mo., N Dak., S.Dak., Nebr., Kans., Colo., and Wyoming.

10th District **NOASJ** Caribbean area

11th District **NOASE** Ariz., Clark county, Neb., S Calif including counties Santa Barbara, Kern, San Bernardino and counties south

12th District **NOASH** Utah, Nev. except Clark county, Northern part of Calif. including SanLuis Obispo, Kings, Tulare, Inyo and counties north.

13th District **NOASK** Wash., Oreg., Mont., Idaho and Alaska

14th District **NOASL** Hawaii, Pacific and Far East areas

15th District **NOASP** Panama Canal Zone