American Radio Relay League

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PACIFIC AREA NET Cycle 4

O P E R A T I N G   G U I D E

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Pacific Area Net Cycle 4
Operating Guide

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INTRODUCTION

The *Pacific Area Net / Cycle 4* ("*PAN*") functions within the *National Traffic System* as the Pacific Area's highest echelon traffic net for the evening – or fourth -- cycle. Net session effectiveness is critical given the distances involved, traffic being relayed, and liaison schedule constraints.

This *Operating Guide* has been developed to help assure *PAN* session effectiveness. It provides all net participants with: a summary restatement of NTS concepts, principles and practices relating generally to area net operations; policies and procedures specific to *PAN*; disaster operation guidance; and related station and net control operating tools.

Exhibiting good operating form on *PAN* not only helps the NCS run an efficient session, it builds *esprit-de-corps* among net participants, and serves as an example to those who follow as traffic-handlers and NTS leaders.

PAN is managed by Robert Griffin, K6YR. The Assistant Net Manager is Pati Urie, W7ZIW. Questions about the net or inquiries into participation in *PAN* sessions may be forwarded to K6YR or W7ZIW by radiogram, Email, telephone or packet at the following addresses:

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Address: 1436 Johnson Avenue, San Luis Obispo, CA 93401-3734
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This *Operating Guide* is updated periodically and redistributed to *PAN* participants. Your suggestions and comments to improve it are welcome. The *Guide* is also posted on the NTS Pacific Area Website at:

http://www.felge.us/pan/pan.html.

Best regards,

 Rob, K6YR, Net Manager

II.
NTS – AN OVERVIEW

The National Traffic System (NTS) is sponsored and supported by the *American Radio Relay League* (ARRL) as part of a comprehensive public service communications program. The NTS collaborates with its sister program, the *Amateur Radio Emergency Service*, or ARES, in offering a full range of volunteer amateur radio service support to public safety-served agencies. The NTS also supports organized special event communications.

The NTS structure, facilities and operators are integrated into a national plan to achieve two principle objectives: rapid movement of traffic from origin to destination, and training amateur radio operators to handle formal written traffic and participate in directed nets. There is often a tension between these objectives, but they are the underlying foundations of the system.

NTS nets and TCC assignments operate on a scheduled basis with digital facilities functioning on a continuous basis. No NTS net or other facility is an independent entity conducting its activities without concern for or consideration of other NTS nets or features. Each net/facility performs its function and only its function in the overall organization. Without this integration, the overall system will suffer.

NTS is not intended as a deterrent or competition for other organized traffic circuits. Other circuits function as valuable alternatives in the best interest of efficient message relay and delivery.

Nets may find it necessary to take temporary expedients to move traffic effectively. At the area net level, such actions should only be considered after discussions by the net manager with the Area Staff through the Area Staff Chair.

NTS principles, policies, practices and operational features are detailed in the League publication, *Public Service Communications Manual (PSCM)*, available by request from the ARRL's Field and Educational Services Department, or off the ARRL Web Site. This Guide summarizes significant aspects contained in the *PSCM* as it relates to the operations of an Area-level net.

PAN participants should be familiar with the *PSCM*, particularly the material on NTS functions in which they are involved, and this *Operating Guide*.

Additional NTS operating resource material can be found in the most current ARRL *Net Directory* available from the ARRL by mail or off the ARRL Web Site:
www.arrl.org/FandES/field/nets/.

III.
PRINCIPLES OF NTS OPERATIONS AT AREA NET LEVEL

A.   General. *PAN* participants will be expected by the NCS to be "savvy" to operations of the Net. New participants will be offered this *Operating Guide* by the Net Manager to assist them develop net session skills. An area net is not a training ground for new traffic operators; it is a perfect place to hone and develop sound operating and traffic-handling skills and judgment. And it is a lot of fun!

B.   Traffic Routing. *PAN* will adhere closely to NTS routing protocol and the net structures, unless conditions require temporary alternative circuits to move traffic listed. See below, Chapter VI and Reference "B" -- the NTS *Routing Guide*.

C.   Routing Deviations. Failure to use normal NTS routings will, if carried to the extreme, cause "strangulation" of one or more NTS nets left out of the traffic circuit. In the interest of efficiency, sound organization, system credibility, training and morale of NTS operators, use the NTS structure as it is intended to be used.

D.   Alternate Routes. Deviations required to be instituted on a more extended basis should be left to the discretion of the Net Manager in consultation with the Area Staff through the Area Staff Chair.

Operators on the higher level nets who handle traffic destined for their locale should deliver the messages, not route them through the system.

E.   Special Liaison Methods. The Net Manager, in consultation with the region net manager involved, may arrange special liaison methods to facilitate traffic moving through the system when operator resources need to be considered.

F.   Participant Recognition. Recognition is an important aspect of organizations that rely on volunteers. *PAN* takes dedicated, skillful operators to make it run smoothly. The Net Manager will stress appropriate recognition, including Area Net Certificates and endorsements, and ARRL special awards.

G.   Net Manager Functions. The Net Manager assigns Net Control Stations, works closely with region net managers and the TCC Director, represents the views of the area net on Area Staff, retains net records and files net reports, and provides net operational guidance.

IV.
PAN Cycle 4 POLICIES

A.   Net Sequence and Schedule. *PAN* conforms to the designated NTS Cycle Four area net schedule plan, holding a daily session at 2030 Pacific Time (2130 Mountain Time). All routine Net sessions shall adhere to Cycle Four time sequence constraints to which region liaison stations and TCC functions are held.

B.   Net Frequencies. The designated *PAN* frequencies are on or about 3552 Khz and on or about 7052 Khz the alternate. During Summer months, band conditions typically require the Net Manager to designate 7052 Khz as the primary net frequency, with 3552 Khz as alternate. Net Control Stations (NCS) have the discretion to relocate a net session to meet circumstances.

C.   Net Session Sequence. The sole purpose of a *PAN* session is to clear traffic listed in an expeditious manner, consistent with band conditions, resources available, and NTS/*PAN* policies and procedures. Following net call-up, the NCS shall request liaison representatives to report in as called to list traffic or clear listed traffic. Designated region net liaison stations should be alert to the NCS calls and directions (including 'QN' signals); otherwise the efficiency of the session may be degraded. Liaison stations without traffic or a session function (including as relay) shall not be held. The net session shall be closed promptly after all listed traffic is cleared.

Chapter VI covers routine net session procedures. Reference "C" lists 'QN' signals that relate to traffic net operations.

D.   Net Check-In Policy. Participation in *PAN* sessions is normally restricted to designated region net representatives and assigned TCC functions, all led by an assigned NCS. Others who report in with traffic will be cleared at the direction of the NCS provided they can follow net procedure and session speed. Visitors without traffic will be promptly excused, unless they can provide outlets unavailable through normal NTS channels.

E.   Limited Load Capacity. "Overflow" traffic must be held over or routed through alternative circuits. This policy permits assigned TCC and region net liaison stations or others acting as back-up representatives to meet prescribed schedules. NCS should not hold a liaison station for traffic that will force the station or stations to miss their assignment.

F.   Net Control Stations. Each *PAN* session is led by a NCS assigned to a Session Schedule by the Net Manager. The schedule is distributed periodically to active net participants, and may include Alternate Net Control Stations (ANCS) to serve as a backup to the NCS. See VI (F) below for detailed duties.

V.
PAN Cycle 4 OPERATIONS DURING DISASTERS

A.   General Operation Considerations. The NTS is dedicated to health and welfare communications during disasters on behalf of ARES, as well as the daily handling of third-party formal written traffic. When an emergency circumstance arises, NTS can expand its routine cyclic operation to fit the situation, including activation of Cycle 3 or continuous operations of the net levels.

B.   Net Manager Functions. During and after a disaster, the primary functions of the Area Net Manager are:

     1. Maintain a high sensitivity to disasters in the Area and in regions adjoining the Area. Notify affected region net managers.

     2. In the event high precedence inter-area traffic is involved, contact the TCC directors and digital coordinator in the Area to assist in making arrangements to clear the traffic to other areas.

     3. Contact other NTS area net managers to confer on the need for additional net sessions or direct "hot line" representation.

     4. Maintain close contact will all region net managers in the Area and make decisions about overall NTS operations in consultation with them.

C.   Self-Alerting Operators. NTS operators should be self-alerting to emergency conditions that might require their services. At the area net level, the immediate need will be for Net Control Stations to lead any special sessions or to monitor the Area Net frequencies for coordination with the Net Manager. Special assignments may be required since some operators may have additional duties as ARES and NTS leaders.

Operators with highly specialized skills or equipment may be sought for "hot line" assignments by or through the Area Net Manager. Flexibility and assignment certainty are keys to effective communications support during emergency operations.

D.   Health and Welfare Traffic. Welfare inquiries into a disaster area should be originated through served agencies and be held to allow stabilization of disaster area communications. Such traffic from a disaster area should be handled in order of its precedence. See the *PSCM* and Chapter VI below.

PAN Cycle 4 ROUTINE SESSION PROCEDURES

A.   <u>Net Session Sequence</u>. The NCS promptly opens *PAN* with a concise call-up, including appropriate *QN* signals. Then follows a listing traffic and liaison representatives/TCC functions in order sought by the NCS. Depending on who has what traffic and precedence, the NCS will continue to check-in, pair off, or excuse stations. The Net frequency will be kept clear during a session to expedite NCS instructions. In some circumstances the NCS will also have a liaison or TCC function assignment requiring use of the Net frequency for short periods to relay traffic. When all traffic has been cleared or successfully assigned for relay, the session is ended by NCS with a concise closing transmission.

B.   <u>Checking-In and Sorting/Listing Traffic to NCS</u>. Assigned liaison and TCC function stations report in at the call of the NCS. Prior to the Net session, traffic held should be carefully sorted by routing nomenclature appropriate to *PAN*. List the route *first*, followed by the number (**not spelled out**) held for that route. *PAN* routings are:

RN6 (Sixth Region Net)   *CAN (Central Area Net)*
RN7 (Seventh Region Net)   *EAN (Eastern Area Net)*
TWN (Twelfth Region Net)

For example: "QTC RN6 2 RN7 1 TWN 4 EAN 1"

C.   <u>Clearing Traffic from EAN/CAN and to CAN</u>. It is customary and a matter of courtesy for the NCS to clear the TCC function stations coming from EAN (Station H) and CAN (Station G), and to CAN (Station I) as soon as practicable. In the case of Stations H and G, they have already devoted considerable time that evening to their function assignment by the time they report in to the Net. The Station I counterpart (Station F) checks into *PAN* or awaits its closing from the Central Area, where it is two hours later than on the West Coast. All session participants without traffic should be promptly excused unless, at the request of NCS, that station can assist in clearing traffic.

D.   <u>Clearing Traffic on Net Frequency</u>. The Net frequency should be used sparingly to handle traffic. Otherwise the efficiency of the session drops and stations back-up awaiting further pairing and checkout instructions.

E.   <u>Following NCS Directions</u>. Net participants should clearly understand, then acknowledge NCS directions. If the directions are not for any reason understood, then ask them to be repeated or clarified. Directions that cannot be carried out should be brought back to the attention of NCS. Do not alter an NCS assigned pairing frequency. Return to Net frequency, advise NCS and obtain further directions based upon the circumstances.

F. <u>Net Control Stations</u>. *PAN* Net Control Stations have considerable responsibility for leading assigned sessions. It can be stressful and often calls for creativity, patience and fortitude. The NCS shall:

- Possess at least 25 wpm code proficiency.

- Have a signal strength that can command the Net frequency.

- Know traffic-related *QN* signals, but don't get carried away with using them.

- Strive for concise, but complete directions, consistently transmitted (brief informalities and humor are rarely inappropriate).

- Check and clear the designated Net frequency before opening a Net session.

- Monitor WWV/H frequencies to judge likely band conditions during the session.

- Adopt and use a complete Net session log sheet to closely track session activity. See Reference "D" for a model Net Session Log Sheet.

- Be familiar with the current region net frequencies and session meeting schedules. Be prepared to assist Station I and F with their schedule for handling CAN traffic.

- Keep the Net frequency clear during the session with periodic calls, such as:

    "PAN de (NCS call sign) k"   "PAN de (NCS call sign) QTC? k"

If an assigned NCS is unable to direct a Net session, the Net Manager or the assigned ANCS should be advised. If the ANCS stands in for the assigned NCS, the Net Manager should be notified.

The results of each Net session should be promptly reported to the Net Manager using a radiogram. See Reference "E" for a sample NCS Session Report Message.

G.   "Back Channel" Contacts. Coordination among *PAN* participants often involves having a "back channel" for administrative matters that do not lend themselves to handling on-the-air. Such things as information reports, obtaining substitutes for assignments, and arranging special schedules require other means of contact.
Reference "F" points to a Directory on the NTS Pacific Area Website listing active *PAN* participants by call sign, handle, full name, address, Email address, and telephone/Fax. This Directory is revised from time to time. Please notify the Net Manager of any changes to this Directory.

REFERENCES

Appendix "A" -- NTS Pacific Area Staff *Terms of Reference*

http://www.felge.us/pan/2001NTSTOR.htm

Appendix "B" -- NTS *Routing Guide*

http://www.felge.us/pan/POGrouting.html

Appendix "C" -- Traffic-Related *"QN Signals"*

http://www.felge.us/pan/POGqsigs.html

Appendix "D" – Net Control Station – Net Session Model Log Sheet

http://www.felge.us/pan/POGlog.html

Appendix "E" – Net Control Station – Sample Session Report Message

http://www.felge.us/pan/POGreport.html

Appendix "F" -- Net Participant Directory

http://www.felge.us/pan/POGmembers.html