

President's Message

Gary Mitchell, WB6YRU

The NCPA held its annual meeting at Pacificon in October. The main topic of discussion was the NCPA organization itself.

As I mentioned in the last *Downlink*, we've had trouble getting a quorum at meetings and the work load is spread among far too few people.

It wasn't a big surprise that once again we didn't have a quorum this time, (missed it by one person). Thus, we weren't able to elect a new board of directors nor were any other votes taken. However, the consensus was that it would be fine if the NCPA re-organized itself to function better with less participation, including going to a committee format.

Among other things, this means the *Downlink* would take a major hit. One person commented that the *Downlink* shouldn't be eliminated altogether, perhaps just have it come out annually or bi-annually.

In my opinion, one contributing factor to the work-load problem is the educational requirement (in the bylaws). This would be nice, but it requires the NCPA to do things that we just don't have the resources or man-power to do.

It was originally done in preparation for us becoming a 501(c)3 non-profit, but I just can't see that happening. I think we should drop that and just concentrate on being a council of packet higher-ups (like the NCPA was originally).

In the process of going to a committee format from a general membership organization, there would be two classes of members. One would be the "ruling class," the other would be "associates." This means the average member would no longer vote for directors or anything else, but would serve merely in an advisory capacity. The board would absorb any general members who wished to join it and would become "the committee," the heart and soul of the organization.

It's possible, even likely, that eventually the general membership aspect would be phased out. At that point, being a member would mean being on the committee.

The board would take in new directors on its own, without any membership votes. The minimum requirement could simply be that each packet special interest had a right to representation on the board. If need be, we could scale their votes so that no one special interest group had an unfair advantage. The only exception I can think of might be that one special interest group could have a small voting

In This Issue

President's Message . . .	1
Annual Meeting	
Minutes	2
DX Spotting nodes . . .	3
ARRL News	4
Packet BBS's	4
Board e-meeting	5
Treasurer's Report . . .	5
NCPA bylaws	6
Digital Channels	10

advantage when an issue that directly affects them is before the board.

Having a *right* to representation on the board doesn't necessarily mean they *must* have a rep. on the board. This would eliminate the problem of having to somehow manage to scrape up a warm body to fill every seat.

With that in mind, the specifications for a quorum would be changed such that unfilled board seats wouldn't count. For example, if there were ten packet special interest groups, but only seven of them cared enough to have a representative on the board, the quorum requirement would be automatically adjusted down as if the normal board were composed of seven seats.

The NCPA is set up as a democratic group made of amateurs interested in digital communications. Those people are the general membership and they're the ones who elect the board. The goal is to make the organization more manageable without losing that open, representative nature.

Transforming the organization as discussed will give the board significantly greater power. The board (committee) should not become a closed

clique or a group of elite that hands down edicts from on high without answering to the rest of the amateur community. And therein lies the rub!

The only things I can think of to deal with this is are: 1) Have restrictions on the board regarding who they may or may not accept as board members, 2) put requirements on the voting such that no one or no single group can dominate, and 3) require the board to consider the view point of anyone or group that their

decisions may affect, whether they have representation on the board or not.

Nothing has been carved in stone yet, this all is still pretty much up in the air. These kinds of changes will require significant modifications to the bylaws. For reference, the current bylaws will be printed in this issue. Hopefully, the proposed changes will be settled and printed in the next issue.

Once all the changes are decided upon, we still would need to vote under the current rules. Given our recent quorum failures, we may have to vote on this by direct mail to the membership. But we can cross that bridge when we come to it.

In the mean time, please feel free to discuss any ideas or comments with me or any board member.

NCPA

Directors

Mel Gregonis (high speed, new tech.), W6BNG	e-mail: gregonis1@attbi.com
Howard Krawetz (Keyboard), N6HM	408-739-7936
home BBS: N0ARY	e-mail: n6hm@arrl.net
Bob Fahnestock (TCP/IP), WH6IO	
home BBS: WH6IO	e-mail: wh6io@benicia.ampr.org
Bob Vallio (DXPSN), W6RGG	510-537-6704
home BBS: N0ARY	e-mail: w6rgg@sbcglobal.net
Dave "Zonker" Harris (APRS), N6UOW	
home BBS: N6QMY	e-mail: n6uow@baker-to-vegas.org
Gary Mitchell (BBS), WB6YRU	408-265-2336
home BBS: N0ARY	e-mail: wb6yru@aenet.net
Mike Fahmie (BBS/Keyboard), WA6ZTY	
home BBS: N6EEG	e-mail: fahmie@earthlink.net

Officers & Staff

President:	Gary Mitchell, WB6YRU
Vice-President:	
Secretary:	Dave Harris, N6UOW
Treasurer:	Howard Krawetz, N6HM
Editor:	Gary Mitchell, WB6YRU
Frequency Coordinator:	Gary Mitchell, WB6YRU
Mail:	Howard Krawetz, N6HM

The NCPA Downlink is published quarterly by the Northern California Packet Association, P0 Box K, Sunnyvale CA 94087, for the entertainment and education of amateur Radio operators using digital modes, and those with an interest in them. A one-year membership in the NCPA, including a subscription to the NCPA Downlink, is \$10.00 in the U.S. and its possessions.

All original material not attributed to another source is Copyright by NCPA. Excerpts may be drawn from this publication without prior permission provided the original contributor is credited and this publication ("The NCPA Downlink") is cited as the source.

The digital band plan as well as other information about the NCPA, are available on the Web at: <http://www.n0ary.org/ncpa>

The NCPA Board of Directors meets electronically in order to transact association business and meet with members and interested amateurs. The address for the board remailer is: ncpa@kkn.net. Anyone can subscribe by sending e-mail to ncpa-request@kkn.net with the command "subscribe" (without the quotes) in the body of the message.

Annual Meeting Minutes

NCPA General Meeting, October 19, 2002, Pacificon (Concord, CA)

Present; WB6YRU, KE6ZMX, KE6I, AA4JK, KN6SQ, W6RGG, N6HM, N6UOW, KE6LW

Gary (WB6YRU) called the meeting to order at 1106h, in the garden courtyard. After introductions, Gary reviewed the last year, including modifications to the NCPA Digital Band Plan, and discussing the low attendance at the General Meeting in January 2002.

Cheryl, KE6I reported that, as of 10/17, an ATV station using the call KF6NWL is still broadcasting commercial weather TV programming on 433.25 in Marin County. (This is likely the same station that received complaints about it 2001 (KH6AF?) that was broadcasting

weather information for his non-ham neighbors to receive with cable-ready TVs. (The ATV affects digital/packet/backbone services.) She was advised to involve her Section Manager, and ensure that the broadcasting continues to be documented. Bob, W6RGG, reports that the DXPSN is also adversely affected by this broadcasting. Cheryl said she would write a letter to the SM.

As a result of the coordination efforts between NCPA and NARCC, 100 kHz digital may be used at the top of the 430-440 band, and at the top of the ATV simplex channel. No ATV repeaters will be coordinated on 70 cm.

Howard, N6HM, gave the treasurers report, listing a current total of \$347.38 in the bank.

N6UOW (me) forgot to bring a roster of

current members, so those in attendance could not check their renewal dates. A few members took the opportunity to renew in person. (Thanks!)

Gary (WB6YRU) continues as the editor of the downlink, after offering the position up to any members of NCPA to take over. (thank Gary. And if you'd like to be the next editor, please contact gary!) A discussion ensued about the content of the Downlink, and feedback was given about topics, etc., ending up with a call for articles. (If you have something you would like to submit for the next Downlink, please contact Gary...)

Gary reviewed the current list of directors, and we did NOT have a quorum of directors, or of club membership, at the meeting. A discussion ensued about recent low attendance, and about the participation of

members via email. Suggestions were made about possible changes to the ByLaws that might help the club make decisions in the absence of a quorum of members at a meeting. (You can read more about this in this issue of the Downlink.) Possible remedies included;

- postal mailings to members, to get votes returned/recorded
- accepting email votes
- scaling back on the number of directors, to increase the chances of getting a quorum at meetings
- moving the general meeting to an Internet (web/email/chat) venue instead
- become a pure membership organization, with the board members elected from the membership (similar to the way it is now)
- the board could be given the power to make decisions, with the membership only giving input (but not voting)
- use a 'committee' format... committees would have the charge to

DX Spotting Nodes

September 2002

<u>Location</u>	<u>Call</u>	<u>Alias</u>	<u>Frequency</u>	<u>Coverage</u>	
California City	K6ZZ		144.490	Antelope Valley area	
	EARN8		144.490	Oak Peak	
Castro Valley	W6RGG	DXCV	145.770	East, West, South SF Bay area	
	Chico	K6EL	DXC	145.670	Chico
		K6EL	DXW	145.670	Oroville, Red Bluff
Hanford	K6EL	DX	144.950	South Fork Mtn - Redding area	
	K6UR	DXFRES	144.950	Bear Mtn, Fresno area	
	K6UR	DX7	145.770	Mt. Adelaide, Bakersfield	
	K6UR	DX16	145.770	Oakhurst	
Livermore	NF6S	DXL	145.770	Tri-Valley area	
Los Gatos	N6ST	DXLG	146.580	Santa Cruz Mtns, Monterey Bay	
	N6ST	DXF	146.580	Santa Cruz/Los Gatos	
Oakdale	K6OQ		146.580	Modesto area	
Penngrove	K6ANP	DXANP	145.670	Sonoma County	
Reno, Nevada	N7TR	RENODX	144.950, 146.58, 441.500 (2400 baud), 51.7		
	N7TR	PCDX1	146.580	Low Level in Reno	
	N7TR	PCDX	144.950	Virginia City, NV	
	N7TR	DX2400	441.500 (2400 baud)		
Rio Linda	K6NP	DXRL	144.950	Sacramento, Woodland, Davis	

Bob Vallio - W6RGG wsixrgg@crl.com

work on projects under the direction of the board.

The suggestion was made that a mailing would go out to members to solicit their votes. Current members would be eligible to vote.

The meeting was adjourned at 1205h

Respectfully submitted, David K. Z. Harris N6UOW

HAMMING COULD BE THE NEXT BIG THING

High-speed multimedia hamming via the "Hinternet" could be the next big thing for Amateur Radio. That's the hope of the ARRL High Speed Multimedia (HSMM) Working Group, which is adapting the highly popular IEEE 802.11b Part 15 wireless Internet protocol to Part 97 amateur operating.

"We expect it to be nothing less than revolutionary!" says John Champa, K8OCL, who chairs the ARRL HSMM Working Group--a subset of the League's Technology Task Force. The Working Group's new "High-Speed Digital Networks and Multimedia" page <<http://www.arrl.org/hsmm/>> recently premiered on the ARRL Web site.

Champa's team is calling the specific

techniques, software and hardware involved "the ARRL 802.11b protocol" to distinguish it from the unlicensed, commercial protocol. Systems employ direct-sequence spread spectrum techniques and operate in the 2.4 GHz range. The term "Hinternet" (ham + Internet), Champa says, is a user-friendly way to refer to the development of high-speed Radio Local Area Networks (RLANs) capable of simultaneously carrying audio, video and data signals.

"The development of the ARRL 802.11b protocol will significantly enhance Amateur Radio, especially with respect to emergency communication and support of public service activities," Champa predicted. He and his HSMM Working Group colleagues also expect that it will attract many technically oriented users of the Internet and wireless LANs to get their amateur tickets.

In addition to emergency communication, Hinternet applications could include two-way streaming video, full-duplex streaming audio, Voice over Internet Protocol (VoIP) applications such as eQSO, EchoLink, iLink and IRLP, and digital voice. As on the wired Internet, communication can be point-to-point, point-to-multipoint and multicast at high bandwidth.

"An emergency volunteer equipped with a laptop or a wireless PDA (personal digital assistant) with a microphone and a small video camera now has the tools to be a mobile set of eyes and ears in the midst of a communications emergency," says Working Group member Kris Mraz, N5KM.

In Michigan, the Livingston County HSMM Experimenters Team already has three HSMM access points--called "APs" in the commercial world--and about a dozen stations on the air centered on 2437 MHz. Another group

News from the ARRL

From *The ARRL Letter*, January 17, 2003

HIGH SPEED MULTIMEDIA

NCPA

Packet Sysops of Northern California Packet Bulletin Board Systems January 2003

Call -----	Location -----	User Ports -----
WH6IO	Benica	144.99, 145.71&+, 145.75&, 433.43&+
WA6ZTY	Berkeley	144.97
KE6I	Berkeley	145.01&, 433.43&
N6RME-1	Diamond Springs	145.07
N6CKV	Gilroy	144.99
N6LDL	Los Gatos	144.97, 145.71&, 441.50
KD6DG	Redding	145.09
W6CUS-1	Richmond	145.63
N0ARY-1*	San Jose	* 144.93, 433.37&
K6YV	Sonora	144.97
WA6EWV-1	South Lake Tahoe	144.97
W6YX-9*	Stanford Univ	* 145.75+
W6SF	Stockton	144.99

Keys:

& = 9600 Baud Port
+ = TCPIP Port
* = Currently Inactive

of Amateur Radio 802.11b enthusiasts has recently organized in the San Antonio, Texas, area.

Although other amateur allocations also would be appropriate for Hinternet operation, the use of 2.4 GHz was an easy choice, since Part 15 WiFi (wireless fidelity) devices already operate in that part of the spectrum, and inexpensive commercial equipment is widely available. Acting on an ARRL petition, the FCC has proposed elevating amateurs to primary at 2400 to 2402 MHz.

The ARRL publications catalog now includes the book 802.11 Wireless Networks: The Definitive Guide <<http://www.arrl.org/catalog/?category=&words=802.11>> by Matthew S. Gast. The book covers the topics of creating and administering wireless networks.

Champa says that taken in a nationwide context, the meaning of the term Hinternet goes deeper than just an amalgamation of words. "In nautical terms the word hinterland is 'the land beyond the coast,'" he said. "And so it is with us. 'The Hinternet' is the radio net beyond the Internet."

F C C L A U N C H E S "CONSUMER-FRIENDLY" ELECTRONIC COMMENT FILING SYSTEM

The FCC has launched "ECFS Express," an updated electronic system that the Commission says will make it easier for at least some members of the public to file comments on FCC proceedings. ECFS Express is a simplified version of the popular Electronic Comment Filing System (ECFS), but it is not available for all FCC proceedings.

ECFS Express is accessible from the FCC home page <<http://www.fcc.gov>>.

Users just click on the "File Comments" logo--which is on the left-hand side of the page about one-third of the way down under the words "Filing Public Comments." To comment, users click on a topic, fill in their personal information, write their comments and hit "SEND."

"ECFS Express will highlight the proceedings most likely to generate consumer interest," the FCC said this week in a Public Notice. "The topics will change periodically as new issues emerge."

The downside is that if the particular issue you want to comment upon is not listed among the ECFS Express topics, you'll have to use the "expert version" of ECFS to comment, the FCC said. At the moment, the ECFS Express list includes no Amateur Radio-related petitions. The FCC says the original Electronic Comment Filing System--which includes all docketed FCC proceedings--will remain accessible on its Web site <<http://www.fcc.gov/e-file/ecfs.html>>.

NCPA

Board of Directors Electronic Meeting

Excerpts of the NCPA board remailer traffic, August 1, 2002 through January 1, 2003. Compiled by Gary Mitchell WB6YRU (Quoted material is in italic. Full text of traffic is available).

Sep 13, 2002

WB6YRU:

Asked for articles for the next Downlink. Mentioned the next general meeting will be at Pacificon

Oct 2, 2002

WB6YRU:

Announced details of annual meeting at Pacificon

Oct. 1, 2002

N6HM:

Allan K. Chapman just donated \$15.00 to the organization.

Oct. 5, 2002

WA6ZTY:

I won't make it to the meeting

WB6YRU:

We'll be electing directors at this meeting. Are you interested in being re-elected as director?

WA6ZTY:

Yes.

Oct 20, 2002

WB6YRU:

We were one short of a quorum at the NCPA meeting; so, we weren't able to elect directors or vote on anything.

We need to elect seven directors annually, we only have five who indicated they'll run for re-election:

N6HM Howard Krawetz (Keyboard)

W6RGG Bob Vallio (DXPSN)

N6UOW Dave "Zonker" Harris (APRS)

WB6YRU Gary Mitchell (BBS)

W A 6 Z T Y Mike Fahmie (BBS/Keyboard)

Nothing hear from:

WH6IO Bob Fahnestock (TCP/IP)

W6BNG Mel Gregonis (high speed packet)

NCPA

Treasurer's Report

Our treasury is solvent to the tune of \$376.49. There has been no activity in the treasury this last quarter except for the occasional bank statement.

Howard, N6HM, Treasurer

NCPA

CONSTITUTION OF THE NORTHERN CALIFORNIA PACKET ASSOCIATION

This document shall serve as the CONSTITUTION and BYLAWS of the Northern California Packet Association, and may be referred to as either.

ARTICLE I Purpose

The Northern California Packet Association is an educational, research, and public service organization. The purpose of the Association is to foster the development of digital Amateur Radio communications in Northern California. This field is occupied foremost by individual Amateurs who, individually and in groups, make efforts to research, design, test, construct, operate, and use digital systems. These individuals and groups also make efforts to recruit and educate others in the field. All of these efforts can benefit from planning and coordination, and it is the purpose of the Association to provide the forum for such to take place. To achieve these goals the Association is organized to function as a working group, rather than as a social organization, and it shall, among other things, strive to do the following:

1. Improve the state of the art in the field of digital communications via Amateur Radio.
2. Encourage and educate interested persons and groups in the area of digital communications via Amateur Radio.
3. Encourage the construction, operation, and expansion of local, regional, national, and worldwide communications systems using digital methods via Amateur Radio.
4. Encourage the development of new and diverse methods of digital communications.
5. Bring together a cross-section of all the diverse interests in the field of Amateur Radio digital communications so all will have a voice and the opportunity to offer their knowledge, experience, talents, and goals to the benefit of the digital community.
6. Select frequencies for digital use, working with users and coordination groups for non-digital modes, with an aim to maximize the ability of the Amateur Radio Service to accomplish its purposes as set out in Federal Regulations.
7. Coordinate use of digital frequencies so that the goals of the digital community are best facilitated.
8. Represent the interests of the Northern California digital community in its contacts with others, such as regulatory bodies, coordination groups for non-digital modes, and digital coordination groups serving other geographical areas.
9. Perform all these activities in Northern California, plus in any contiguous areas if the digital users in those areas and the Association should so decide.

ARTICLE II Members

- A. Any individual or bona fide Amateur Radio club interested in the coordination of digital communications may become a Member upon making application and paying the dues. Memberships run from the time of joining until the same date the following year. Memberships automatically expire unless renewal dues are submitted. Membership may be denied or revoked for cause. "Cause" is defined as conduct by the Member inimical to the Association's interest, and shall include, among other things, the inability to work with others in carrying out the Association's purposes.
- B. Each bona fide Amateur Radio club which joins the Association shall designate a person to act as their representative. A club may also designate an alternate to serve if its representative is absent. Such designations shall become effective when the Secretary is notified of them by the club, and they shall remain in effect until he is notified otherwise.
- C. Each individual Member and each representative (or alternate) of each club which is a Member shall have one vote at General Meetings of the Association.
- D. All records of the Association shall be open to the inspection of any Member, and any Member shall have the right to

timely copies of such records at cost and in any reasonable format requested. Only information in the nature of access codes may be withheld from such a request.

E. Lists of names of Members, as well as other information provided by the Association from its records, shall be used only for internal matters concerning the Association or the digital community it serves. Such lists shall not be used for solicitation, by other associations, for publication, or for commercial purposes of any kind. The Board may in writing waive these restrictions in circumstances where they deem it appropriate.

F. Amateur radio operators may band together to form Special Interest Groups in cases where they share an interest in a specific aspect of digital communications. They may select individuals to represent their group before the Board and thereby achieve greater participation in the Association's activities. Such representatives shall not become voting members of the Board because of that status, but the Board shall make an effort to obtain and weigh their opinion before making decisions concerning the interests of the group.

ARTICLE III Board of Directors

A. The Association shall be run by a Board of Directors (Board) which shall each year originally consist of seven individuals elected at the Annual General Meeting and have a term of one year. The Board may at any time elect additional individuals to the Board in order to achieve a Board reflecting the diversity of interests in the digital community; however the maximum size of the Board shall be eleven members. These additional Board members shall, upon their election, have equal standing with the electing members and they shall have terms of office to expire at the same time as those of the electing Board. Each Board member must be an individual Member of the Association.

B. The Board shall manage the Association, and it shall perform other duties attributed to it by custom or law.

C. Board meetings shall be held in Northern California unless all Board members agree otherwise. Board meetings may be called by any three Board members. To have a Board meeting, each Board member must have been notified of it or have waived the right to notice. Notice may be put in the mail, sent digitally, or phoned to each Board member at least 4 days before the meeting, or publication in the newsletter will suffice. Half of the Board members constitute a quorum to do business.

D. The Board may elect to meet electronically (e.g. internet remailer) so long as all Directors and Officers have approximately equal access. Such meetings may occur often and deal with single issues as they come up. As far as is practical, every effort must be made to make such meetings as open and accessible as face-to-face meetings.

E. A majority of those voting on any matter is required for it to pass. EXCEPTION: An affirmative vote of two-thirds of the Board members is required to remove a Board member from that body or revoke a membership in the Association.

ARTICLE IV Officers

A. Officers shall be appointed by the Board. Officers need not be Members of the Association, nor must they be members of the Board. The Officers shall carry out the day-to-day management of the affairs of the Association in accordance with direction given them by the Board.

B. The Association shall have five Officers with duties as follows:

1. The President shall run Association meetings. His primary function is to coordinate. He shall strive to get other people to do as much as possible and thus increase involvement by others.

2. The Vice President shall assist the President, and shall perform the President's work if the President is absent.

3. The Secretary shall keep the Association's records, except financial and property records. He shall keep minutes of meetings and issue Association correspondence.

4. The Treasurer shall handle the Association's money. He shall make reports on the Association's financial condition as needed. He shall keep an inventory of any materials owned by, or on loan to the Association.

5. The Newsletter Editor shall produce the Association's newsletter. The newsletter shall be sent to all Members of the Association, all Board members, all Officers, and all Appointees. It may be sent to others at the Editor's discretion. All notices of General Meetings and minutes of all General and Board Meetings shall be published in the newsletter. Newsletters giving notice of a General Meeting must be placed in the mail thirty days before the Meeting.

C. In addition to the duties specifically listed, each Officer shall have the duties attributed to his office by custom or law.

D. The Board may designate individuals or committees to assist in specific duties (Appointees). Technical committees, frequency coordinators, and the like are examples. The Board shall specify the extent of the authority of such Appointees in the motion appointing them.

E. Officers and Appointees serve at the pleasure of the Board, and the Board may remove such persons from their positions and/or redefine their authority at any time. The term of office of Officers and Appointees terminates on April 30 of each year.

ARTICLE V General Meetings

A. An Annual General Meeting shall be held once per year, the time and date to be announced in the newsletter or by separate written notice at least 30 days in advance. Additional General Meetings may be held during the year upon being called by the Board, or upon petition of the members per paragraph C of this article. General Meetings shall always be in Northern California. General Meetings shall be held only on Saturdays or Sundays, with a starting time no earlier than 10 a.m. The purpose of General Meetings is to provide a line of communications between the Board and Officers on one hand and the Members and members of the public on the other.

B. The final power in the Association rests with its Members; a vote by the Members prevails over a vote by the Board if they conflict. Any Member may bring any action up for a vote, but only if notice of the topic to be voted on has been published in the newsletter. The Editor shall include any notices of this type submitted to him by a Member.

C. Any fifteen Members may submit to the Secretary a petition calling a General Meeting. The petition shall state the date (at least 33 days hence), time, place, and topics to be discussed. The petitioners shall then within three days place a copy of the petition in the mail to all usual recipients of the newsletter. If the Secretary's office is vacant or he cannot be located in Northern California, delivery of the petition to another Officer or a Board Member shall suffice.

D. Items of business may be brought before a General Meeting by the Board of Directors without prior notice in the newsletter, but such notice is always required for actions at a General Meeting to amend this Constitution, to remove a Board member, or to revoke a membership in the Association.

E. Fifteen percent of the Members, but at least ten in number, must be present at a General Meeting to constitute a quorum, and a majority of those voting on a measure is required for it to pass. EXCEPTION: Two-thirds of those voting is needed to amend this Constitution, remove a Board member, or revoke a membership in the Association.

ARTICLE VI Required Notice

If action to remove a Board member or revoke a membership in the Association is to occur, written notice must be put in the mail to the affected party at least 15 days beforehand, so that he can have his say at the General or Board Meeting where the vote is to be taken. Temporary actions of this type may be taken without notice in an emergency, but no final action may be taken without it.

ARTICLE VII Amendments

Amendments may be made to this Constitution only by the Members (not by the Board of Directors). Proposed Amendments shall be set out in full in the newsletter preceding the General Meeting at which the vote is to be taken. The newsletter shall be put in the mail by first class mail to all Members at least thirty days before such meeting.

ARTICLE VIII

Implementation

This Constitution shall become effective on an interim basis, until the next General Meeting, when approved by the Board. It shall be submitted to the membership for approval at the next General Meeting, and it shall become effective upon their approval.

[Voted and approved, NCPA General Meeting, Sunday, February 4, 1990]

Article II, paragraph A is amended as follows: the sentences below are to be deleted:

New memberships run from the time of joining until the first March 31 thereafter. Renewal memberships run from April 1 to March 31.

and are to be replaced with the sentence:

Memberships run from the time of joining until the same date the following year.

Voted and approved, NCPA General Meeting, Sunday, May 3, 1992.

Article II, paragraph F is amended as follows: The first word: "Members" (meaning NCPA members) is replaced with: "Amateur Radio operators".

Article III, paragraph D is re-labeled as E. The following new paragraph is added:

"D. The Board may elect to meet electronically (e.g. internet remailer) so long as all Directors and Officers have approximately equal access. Such meetings may occur often and deal with single issues as they come up. As far as is practical, every effort must be made to make such meetings as open and accessible as face-to-face meetings."

Voted and approved, NCPA General Meeting, Saturday, May 10, 1997.

Article III, Paragraph A is amended as follows:
The end of the first sentence is changed from:

"...at the April General Meeting to serve for one year beginning May 1."

To:

"...at the Annual General Meeting and have a term of one year."

Article V, Paragraph A is amended as follows:
The first sentence is changed from:

"A GENERAL MEETING shall be held, as far as practical, every April."

To:

"An Annual General Meeting shall be held once per year, the time and date to be announced in the newsletter or by separate written notice at least 30 days in advance."

Voted and approved, NCPA General Meeting, Sunday, October 17, 1999.

Digital Channel Allocations in Northern California

N C P A

March 2002

50 MHz

50.60-50.80 (20 kHz channels, non-specific at this time)
51.12 SCA backbone
51.14 BBS
51.16 Keyboard to Keyboard
51.18 Experimental
51.62 TCP/IP, 9600 baud
51.64-51.68 (20 kHz channels, non-specific at this time)

NOTE: On this band adjacent channel interference is harder to overcome for repeaters. NARCC requests that any new six meter permanent packet installations (such as nodes) please check with their six meter coordinator. You don't need a formal coordination, but they would like to be aware of your station and have an opportunity to check for possible conflicts first.

144 MHz

144.31 BBS
144.33 Balloon & experimental
144.35 Keyboard to Keyboard
144.37 BBS LAN forwarding
144.39 APRS (U.S. and Canada)
144.41 duplex, lower half (145.61 upper half, 1.2 MHz split)
144.43 TCP/IP (OK to run duplex with 145.65)
144.91 Keyboard to Keyboard
144.93 BBS
144.95 DX Spotting
144.97 BBS
144.99 BBS
145.01 User access
145.03 Keyboard to Keyboard
145.05 Keyboard to Keyboard
145.07 BBS
145.09 BBS
145.61 duplex, upper half (144.41 lower half)
145.63 BBS
145.65 TCP/IP 9600 bps (OK to run duplex with 144.43)
145.67 DX Spotting
145.69 BBS
145.71 9600 bps
145.73 BBS
145.75 TCP/IP
145.77 DX Spotting
146.58 DX Spotting

NOTE:
Allocations from 144.31 through 144.43 are relatively close to the weak-signal sub-band—please watch your FM deviation.

220 MHz

219.05-219.95 100 kHz channels, Backbone
223.54 LAN
223.56 LAN
223.58 LAN, Gilroy (GARLIC)
223.60 LAN, Sacramento Valley (SACVAL)

223.62 LAN, South Bay (SBAY)
223.64 TCP/IP
223.66 Keyboard to Keyboard
223.68 DX Spotting Backbone
223.70 LAN, Monterey Bay & North Coast (MRYBAY)
223.72 LAN, North Bay (NBAY)
223.74 Backbone, DX Spotting

NOTES:

- 219 channels are by coordination only. There are currently political problems with using 219-220, making them unavailable in most of northern CA.
- On 223.58, TCP/IP interlink (Sacramento) is secondary, not to interfere with node uplink.

440 MHz

431.45 / 434.85 Duplex (100 kHz)
431.55 / 434.95 Duplex (100 kHz)
431.65 / 438.40 Duplex (100 kHz)
431.85 / 438.60 Duplex (100 kHz)
431.95 / 438.70 Duplex (100 kHz)
433.05 TCP/IP backbone (100 kHz)
433.15 BBS backbone (100 kHz)
433.25 DX Spotting backbone (100 kHz)
433.33 Experimental (60 kHz)
433.37 BBS, 9600 baud
433.39 DX Spotting
433.41 BBS LAN
433.43 9600 baud TCP/IP
433.45 BBS LAN
433.47 Keyboard Interlink
433.49 TCP/IP
433.51 Keyboard
433.53 Keyboard
433.55 BBS LAN
441.50 Any digital

900 MHz

903.500 1 MHz wide, TCP/IP
904.500 1 MHz wide, TCP/IP
915.500 1 MHz wide, experimental
916.100 200 kHz wide, experimental
916.300 200 kHz wide, experimental
916.500 200 kHz wide, experimental
916.650 100 kHz wide, experimental
916.750 100 kHz wide, experimental
916.810 20 kHz wide, experimental
916.830 20 kHz wide, experimental
916.850 20 kHz wide, experimental
916.870 20 kHz wide, experimental
916.890 20 kHz wide, experimental
916.910 20 kHz wide, experimental
916.930 20 kHz wide, experimental
916.950 20 kHz wide, experimental
916.970 20 kHz wide, experimental
916.990 20 kHz wide, LAN links (Contra Costa County only)

NOTE:

900 MHz activity is on a non-interference basis to vehicle locator service. This sub-band is not considered suitable for omnidirectional systems. Use for point-to-point links only.

1296 MHz

- 1248.500 1 MHz wide, experimental*
- 1249.000-1249.450 Unchannelized, experimental
- 1249.500 100 kHz wide, experimental
- 1249.600 100 kHz wide, experimental
- 1249.700 100 kHz wide, experimental*
- 1249.800 100 kHz wide, experimental*
- 1249.870 20 kHz wide, experimental
- 1249.890 20 kHz wide, DX Packet Spotting
- 1249.910 20 kHz wide, experimental*
- 1249.930 20 kHz wide, experimental*
- 1249.950 20 kHz wide, experimental*
- 1249.970 20 kHz wide, experimental*
- 1249.990 20 kHz wide, experimental*
- 1250.500 1 MHz wide, experimental
- 1251.500 1 MHz wide, experimental
- 1297.000-1298.000 Unchannelized, experimental
- 1298.500 1 MHz wide, experimental*
- 1299.000-1299.450 Unchannelized, experimental
- 1299.500 100 kHz wide, experimental
- 1299.600 100 kHz wide, experimental
- 1299.700 100 kHz wide, experimental*
- 1299.800 100 kHz wide, experimental*
- 1299.870 20 kHz wide, BBS LAN
- 1299.890 20 kHz wide, DX Packet Spotting
- 1299.910 20 kHz wide, BBS LAN
- 1299.930 20 kHz wide, experimental*
- 1299.950 20 kHz wide, experimental*
- 1299.970 20 kHz wide, experimental*
- 1299.990 20 kHz wide, experimental*

* Full duplex channel pairs at 50 MHz separation, example:
1249.910 ↔ 1299.910

Definitions

9600 BPS Stations using 9600 baud with direct FSK (G3RUH, TAPR, etc.) modems.

Backbone No uncoordinated stations. These channels are for specific purposes as defined by the NCPA and/or affiliated groups. These are frequencies where the various BBS, nodes, and networks forward traffic and are very high volume channels. Please use the normal user entry points of the network you want to access rather than these channels.

BBS These frequencies are for user access to a full-service BBS. Keyboard-to-keyboard is tolerated. Please don't put high level nodes or digipeaters on these channels since they are local. A low-level direct link or node that links into a backbone on another frequency is the proper implementation.

Duplex Simultaneous transmit and receive by a single station, including digital repeaters. Duplex channels are intended for high-volume applications. 9600 baud or higher is encouraged, but not required at this time.

DX Spotting Northern California DX packet spotting network. No other activity should be on these channels.

Experimental Anything goes except full service BBS or any 24 Hr/Day services (nodes, gateways, etc). This is where you can test new gear, programs, etc. These channels may

be reassigned in the near future, so no permanent activities please.

Forwarding same as *backbone*

Keyboard to Keyboard Primarily chat channels. These are also the primary emergency channels. No high-volume activity such as full service BBS, DX Spotting, TCP/IP, etc.

Interlink same as *backbone*

LAN Local Area Network. BBS's are grouped into LAN's for more efficient forwarding. A LAN frequency is the forwarding channel within a LAN and to the backbone. Please do not attempt to access the BBS network on these channels.

Personal mailbox/mailedrop A BBS-like system, often running entirely within a TNC, with a small number of users that handles information of a personal, local or special-purpose nature. A mailbox is allowed on keyboard-to-keyboard channels ONLY if it does not forward with other BBSs. Mailboxes may forward with full-service BBSs on LAN channels at the discretion of the BBS SYSOP.

TCP/IP Stations using TCP/IP protocol on top of AX.25. Some AX.25 tolerated to communicate to TCP/IP stations if a compatible p-persistence access method used.

User Access User access to a network. This is for the next generation of packet which is expected to operate like the internet. Users would access such a network on these frequencies. The load on these channels may be rather high, like BBS channels. The activity may be any combination of BBS, keyboard, TCP/IP, or other modes.

Procedure for changes

Send requests for changes to either the frequency coordinator or the NCPA board. The frequency coordinator will then present the request to the board along with suggested assignments. The NCPA board, elected by you, the packet user, makes all assignments.

Misc. Info.

Packet tends to splatter if the deviation is set too high. Please keep your deviation to less than 5 kHz.

Except for the 219-220 MHz segment, the NCPA currently does not coordinate individual stations, nodes, etc. leaving that to the special interest groups. BBS station coordination is done by the PSNC in Northern CA. DX spotting is coordinated by DXPSN. Some digital has been coordinated on auxiliary channels by NARCC.

The NCPA board conducts most of its meeting activity electronically by internet e-mail remailer, nca@kkn.net. As with face-to-face board meetings, interested persons are welcome. For more information about the remailer send email to nca-request@kkn.net with just the command HELP in the message body, nothing in the subject, and an email message will be sent to you. Subscribe by using the command SUBSCRIBE in the message body. Subscribing to the remailer is like attending a continuous NCPA board meeting. One must subscribe before posting messages.

Northern California Packet Association

The NCPA fosters digital communications modes of amateur radio through education, band planning, and acts as an umbrella organization for various packet special interest groups. Your annual dues helps pay for this newsletter and other educational materials activities. If you might be interested in getting more involved, please let us know.

Call: _____ Home BBS: _____ e-mail: _____

Name: _____ Address: _____

City: _____ State: _____ Zip + 4: _____ Phone: _____

- New Membership Renewal Change of Address I'm an ARRL Member
 One year: \$10 Two Years: \$20 Three years: \$30
(make checks payable to NCPA)

Please indicate your area(s) of interest:

- BBS SysOp BBS User APRS NET/ROM TCP/IP High-speed packet
 DX Packet Spotting Network Keyboard to Keyboard FCC/legal issues Other:

NCPA *Downlink*

Northern California Packet Association

PO BOX K

Sunnyvale CA 94087

First Class