

K7LED RELAY

The Relay is the official tabloid of the Mike and Key Amateur Radio Club. The Mike and Key ARC is dedicated to the growth and betterment of Ham Radio. We meet the third Saturday of every month at the Salvation Army Renton HQ, 720 Tobin St. near McLendon's Hardware store. The club operates repeaters on 53.05, 146.82 (103.5 CTCSS), and 224.12 under the call sign K7LED. The following nets meet on the 146.82 repeater: Club net on Wednesdays at 7:30 PM, Public Service net Thursdays at 7 PM. The Clubs mailing address is PO Box 2121 Kirkland, WA. 98083. All persons interested in Amateur Radio are invited to participate in the Mike and Key Club and it's activities. Yearly dues are: Single \$12, Family \$18.

VOLUME 23

NOVEMBER 1995

NUMBER 11

PRESIDENT

Carolyn Pasquier WV7Q 862-1157

VICE PRESIDENT

Debra Hiraki KB7QMQ ∠42-8180

SECRETARY

Ryan Martin N7TNI 631-5370

TREASURER

Charles Stroeher WA7EBH 392-5303

ACTIVITIES

G. Ray KB9HHK 313-4649

RADIO OFFICER

Ken Rau K7YR 222-7711

TRUSTEE NO. 1

Tom Patterson N7VDU 432-1500

TRUSTEE NO. 2

Dan Humphrey N7QHC 243-0163

TRUSTEE NO. 3

Al Hopwood KB7THX 747-5192 (COB)

TRUSTEE NO. 4

Chuck Benefiel N7STR 279-1517

TRUSTEE NO. 5

Frank Henshaw K7VMG 931-8201

EDITOR

Jøyce Stroeher N7JPW 392-5303

JOYCE STROEHER 19415 SE 21st ST. ISSAQUAH, WA. 98027

BOARD MEETING

On last Tuesday at 7:30 PM Salvation Army in Renton Next meeting - Nov. 28 @ 7:30 PM

CLUB MEETING

Saturday Nov. 18 at 10:00 AM Renton Salvation Army HQ 720 Tobin St. Renton By McLendons Hardware Doors open at 9:30 for donuts TALK-IN ON 146.82 RPTR

RELAY DEADLINE

BY THE FIRST OF THE MONTH!

MEETING PROGRAM

Presentation By Harry Lewis W7JWJ





FIRST CLASS MAIL

Life

KTWTG HEDBERG, PETE 20904 NE 77th ST REDMOND, WA 98053

CHECK MAILING LABEL FOR DUES EXPIRATION DATE!

THE PREZ SEZ

Submitted by Carolyn WV7Q

What a Great Reason to Celebrate! 25 Years of Radio Activity, 25 Years of encouraging, sharing, training, and motivating others into this wonderful brotherhood of Amateur Radio. The celebration we shared on October 21, 1995 was only the beginning of our 25th Year. Many things we do during the next year will be for the 25th time. Expect more frivolity.

We were privileged to have all six of our first 25 year members in attendance. Ken K7PZX, Carl W7PRW, Chuck WA7EBH, Jim K7ND, Steve K7KOT, and Pete K7WTG all received Certificates of Special Service for 25 continuous years of membership and participation. We also honored two of our current members who are also founding members, Jim K7PHZ and Frank K7VMG.

Invitations were sent to as many founding members as we could locate. They came from Spokane, Montana, Whidbey and Camano Islands. Personally, I wish I had more time to hear the reminiscing and the wonderful stories shared. I, too, wanted the chance to personally thank and get to know, Jim W7GPW, Gary K7JDJ, Chuck WA7RJT, John K7TTQ, Bob K7PVT, and Norm K7PVV. As one of the organizers, my pleasure was in running by smile after smile, and listening to the laughter and animated conversations.

I always hesitate to list names of those responsible for all the hard work for fear I will innocently omit someone and do more harm than good. But, in this case, let me thank all those who made this celebration such a success. First, there was Ken K7PZX, who dug through his closets and came up with old club records that made it possible to find many of the original members. Then there was the original committee that met during the summer to make all of the necessary preliminary decisions. Chuck N7STR shared his artistic talents with the computer, designing all of the logo's and procuring all of the materials needed for the invitations, the mugs, the jackets and the cake. In the last few weeks, he also unwittingly, became my right arm, running numerous last minute errands and always being there. Dan N7QHC and Dawn made the buttons that will be a lasting momento for us all. Mike N7GVQ and Frank K7VMG did an admirable job of greeting everyone at the door and getting them in a partying mood. Vic N7YPB picked up the ball and provided us with a marvelous feast of food and beverage to please all. (Thanks, Vic.) Then, it all came together through the exhaustive efforts in the kitchen by our beloved Frank KA7QHG, and Kathryn

Jackson, bride of Ken K7PZX. Bill KL7BB entertained us with 'about 9 minutes' of silent movies from 70's era Mike and Key.

To all of you.... thanks for this wonderful opportunity to honor our founding members and thank them for the marvelous club that we enjoy today.

Eric, N7TQC will be undergoing major surgery November 10th. Think positive, Eric, you'll be in our thoughts.

Mike and Key Board Meeting, September 26, 1995 Submitted by Ryan/N7TNI

Present: Pres. Carolyn/WV7Q, Vice Pres. Debbie/KB7QMQ, Sec. Ryan/N7TNI, Treas.-Chuck/WA7EBH, Trustee #1 Tom/N7VDU, Trustee #2 Dan/N7QHC, Trustee #3 Al/KB7THX, Trustee #4 Chuck/N7STR, Trustee #5-Frank/K7VMG Visitors were Dawn Humphrey, Frank/KA7QHG, Jack/KB7ZS, Mary/W7QGP, and Robert/AA7ZC.

The meeting was called to order by AI/KB7THX at 1930.

Officer Reports: Pres: Carolyn/WV7Q - Received correspondence from the Save the Missouri committee, asking for the M&K Club's support at circulating a petition at our meetings. The board petition will be available in the coffee room at the general meeting. She reported the progress of the youth activity, scheduled for early next year, and efforts to locate someone to make circuit boards at a favorable cost. She felt the 25th anniversary party went very well.

Vice Pres: Debbie/KB7QMQ reported Fred Roberts/W7TKV's application for membership has been pending since July. Fred lives in California, but wants participate in Field Day next year. Chuck/WA7EBH commented the club needs active members, and that you need not be a member to participate in Field Day. It was moved and seconded to accept Fred as Interim Subscription member, i.e., accept his dues money, send him the RELAY, and vote on his membership next general meeting he attends. After discussion, motion passed. Debbie/KB7QMQ will send Fred a letter of explanation. It was moved and seconded we offer subscriptions for RELAY at the rate of annual payment of dues. Motion amended to convert membership applications pending over 90 days. After discussion, motion failed. Debbie presented application for membership from Cecil Rickard/KC7BYZ. After discussion, board approved for membership vote at the November general

It was moved and seconded the club send visitors 2 consecutive issues of the RELAY. Motion amended to restrict the mailings to the Puget Sound area. Motion passed as amended.

Treasurer - Chuck/WA7EBH gave the financial report. Financial data for the last year available for members' review at general meeting. Chuck gave financial reports to board members.

Secretary - Ryan/N7TNI reported that Merlin Strickler/ KA7GVK became a Silent Key Oct. 26. It was moved, seconded and passed to approve the minutes as published in the RELAY.

Act. Manager - G. Ray/KB9HHK: Absent due to job commitment. Dan/N7QHC visited Western Wash. DX Club board meeting. They want to do a program to present their club to our members.

Radio Officer Ken/K7YR absent
Chairman of the Board - Al/ KB7THX
received a letter from Mike/WA7UVJ, asking to
withdraw his proposal for having our club jointly
sponsor an ARRL Northwest Region Convention with
the Radio Club of Tacoma. It was moved, seconded
and passed to accept Mike's request...

Standing Committee Reports:

Public Service - Dan/N7QHC reported committee met October 19; discussed creating a brochure of emergency phone numbers (Puget Power, City Light, railroads, and others that would be useful), for members. Next meeting 3rd Thursday of the month, 1900, South Center Denny's.

Tech. & Special Interest: - Tom/N7VDU. Met today. Report in next RELAY. They are creating a database of people with technical skills for Elmering, etc.

Education and Training-Frank/ K7VMG reported next meeting is Monday, November 6, South Center Denny's, 1930. The are creating a poster listing Pre-membership meetings. Also, determining the best way to distribute the Archie Comics and Now You're Talking books. Floyd/W7JQD is interested in having CW classes and plans to attend the next meeting. Ray/ WA7EKH would like to teach a No-Code Tech class (for ladies), if enough interest. David Lee/ KC7FSR, needs some help forming a class for young people in the Kent area. Al/KB7THX will do a session on operation of the MFJ 259S antenna analyzer, prior to November general meeting. In December, Frank/K7VMG will do a presentation on repeater operations.

Long Range Planning - Chuck/ N7STR reported the membership filled out surveys at the October meeting. They met October 23, mailed out 103 surveys and rosters to members who did not attend the meeting. The deadline for returning them

is the date of the next club meeting. The board discussed ways to increase member involvement. Next meeting is Tuesday, November 21.

Facilities and Publicity - Chuck/N7STR reported the committee approved proposal for a storage building at the Salvation Army Headquarters. Captain Halvorsen is in favor of it and Denny Strand is reviewing it. Board has copy of the proposal.

RELAY - Chuck/WA7EBH says Joyce needs submissions ASAP, the issue will be printed 11/9.

Flea Market - Chuck/WA7EBH: Next meeting November 2, 1930, Salvation Army Headquarters..

ARRL - Mary/W7QGP, as affiliated club coordinator, and past director, gets a computer printout from headquarters which indicates last affiliated report was filed April 14, 1994; last Special Service Report filed in September, 1993. Only 50 % of M&K members are ARRL members. Mary reports the AMSAT Phase 3D project has over \$150,000 in donations with matching funds provided by ARRL. The deadline for donations is August 23, 1996. Our club receives \$5.00 from ARRL for each new league member, and \$2.00 for each renewal. Mary advised Jim K7ND is our Awards Manager.

Old Business:

Chuck/WA7EBH - Budget meeting with the trustees, at his home, November 8, at 1930.

Field Day - Jack/KB7ZS says we have approval to use the barracks at Fort Flagler for Field Day 1996 at \$6.25/person. The barracks accommodates 25- 29 persons. M&K ARC came in 4th in class 6A this year.

New Business:

Dan/N7QHC suggests a Christmas party QSL contest, where members bring their weird, old, big, and small cards. He will contact Don/KC7MPI.

Don Taylor/KC7MPI will chair the Christmas party, Saturday, Dec. 9, 1700-2100. Club will provide meat and beverages; members will provide potluck. Don will have info in the RELAY. Optional gift exchange, \$5.00 limit.

Dan/N7QHC suggested a contest to begin January 1st, 1996, the object being the first person to make 200 contacts in any mode (except repeater nets) and present a log to a club contest committee. Purpose is to promote friendship on the air. Carolyn/WV7Q asked the Education and Training committee plan promotion of the Friendship Award, and asked Dan to work with Frank/K7VMG.

Good of the order:

Chuck/N7STR reported Carolyn has a new antenna, a 3-element Tri-bander with 440MHZ ATV Yagi on a rotor 95 feet in a tree, installed by Alan/KB7SVU from Radio Club of Tacoma, his son,

and 4 other hams. First contact was Hawaii, 2000 Miles.

It was moved, seconded and passed to adjourn at 2130.

GENERAL MEMBERSHIP MINUTES October 16, 1995

Submitted by Ryan/N7TNI

Present: Pres. Carolyn/ WV7Q, Vice Pres. Debbie/KB7QMQ, Sec. Ryan/N7TNI, Treas. Chuck/WA7EBH, Trustee #1 Tom/N7VDU, Trustee #2 Dan/N7QHC, Trustee #3 Al/KB7THX, Trustee #4 Chuck/N7STR, Trustee #5 Frank/K7VMG, Act. Manager G. Ray/KB9HHK, Radio Officer Ken/ K7YR, RELAY Editor - Joyce/N7JPW

Call to Order Pledge of Allegiance

Welcome to members and visitors by Carolyn/WV7Q and asked visitors to sign the attendance rosters. Coffee and doughnut fund is self supporting, please remember to donate. Please use west side of building for breaks. Self introductions followed.

Officer's Reports:

Pres. Carolyn/WV7Q gave M&K's internet address, mikeandkey@aol.com. It was moved, seconded and passed tp approve minutes last meeting as published in RELAY. M&K is an ARRL affiliated club, and the ARRL is our means of legislative power. Please be a responsible amateur and join the league.

Vice Pres. Debbie/KB7QMQ presented the applicants for membership: Fred Roberts/W6TKV, Katie Taylor/KC7MPH (not present) Present and approved memberships: Robert Goodnow/N7JHJ, Matt Luebbert/KC7MBR, Don Taylor/ KC&MPI.

Sec. Ryan/N7TNI no report.

Treas. Chuck/WA7EBH reported the financial status of the club. Books are available for members to inspect.

Carolyn/WV7Q announced that the board had received a proposal for an ARRL Northwest Division convention, for Spring or Summer, 1997. She asked for a hand vote of members present in favor of the M&K club being a primary sponsor. It would require both financial support (\$2000 to be budgeted in 1996), and willing workers. Majority voted yes. Last call for logs from the Tri-Club contest held in August. QSL cards are almost ready. The ham youth workshop will be during the club meetings in Jan., Feb., and March with limited capacity. Contact Carolyn to sign up 6-16 year olds. Because the 25th anniversary celebration is today, no business will be

conducted. All officers and committee reports are published in the RELAY. Officers are available during the meeting for contacts about their activities/reports.

RELAY - Joyce/N7JPW had too many articles, 3 articles were not printed.

Carolyn asked those who received white buttons and certificates as they entered to stand up, they are the founding members. Former members came from Whidby Island, Spokane, and Montana. In recognition of 25 years of service as charter members of the M&K ARC, the board approved and Carolyn presented Life Memberships to Pete Hedberg/ K7WTG, Steve Tillet/K7KOT, Jim Christiansen/K7ND, Carl Butler/ W7PRW, Chuck Stroeher/WA7EBH, and Ken Jackson/K7PZX.

Chuck/WA7EBH had membership rosters available.

Strategic Planning Committee presented a survey members to complete.

The meeting was adjourned at 10:46.
Program was the celebration of the Club's 25th anniversary.

Bill/KL7BB showed a movie from the early days of the club.

FACILITIES COMMITTEE Submitted by Chuck/N7STR

Met October 21, 1995 and discussed the emergency facility that we have been working on for the last year. I presented a proposal to have an out building 8' x 12' with a window and vents to be built in the area we had designated for a trailer. Cost is under \$1200.00 and with help from a crew, it could easily be completed ready for radio equipment, for an additional \$500.00. It would be painted to match the salvation army bldg. The committee approved this proposal. It was presented to Captain Halverson of the Salvation Army, who will discuss it with Denny Strand, facilities liaison, and report back. He indicated the only reservation is in the past, when the Salvation Army had an out building in the same location, they had a problem with break-ins. He and Chuck WA7EBH suggest we install a heavy duty locking system on the door, an estimated \$200.00. Any suggestions from club members are welcome. Members wanting to join a work party for insulation, wall board and overhead shelf storage modifications, contact me or committee members: AI/KB7THX, Nils/WB7TJK, Ray/WA7EKH, Chuck/ WA7EBH, or Ken - K7PZX.

LONG-RANGE PLANNING Submitted by Chuck/N7STR

Met October 23 to tabulate results from the survey taken at October club meeting and mail surveys and membership logs, to members who did not attend the meeting. Present: Carolyn/WV7Q, Chuck/KB7OS, Sam/N7RHE, Rick/ KF7VG.

Next meeting November 21, 7PM to tabulate all results.

You may return your survey by mail to Chuck Benefiel/N7STR, P:O. Box 166, Sumner, WA. 98390, or bring it to the next meeting giving it to me or committee member.

NOVEMBER PROGRAM Submitted by Harry/W7JWJ

Two foot tall aliens leave on an expedition from the planet ASCII to the planet (Earth) from which their forefathers had migrated centuries before.

As they approach earth, they are guided up the Oregon/Washington coast to an anthropological dig centered on the ancient island of Marrowstone.

They land during the last weekend in June and are surprised to see semi-intelligent life forms apparently attempting to contact outer space with some crude form of electromagnetic radiation.

25TH ANNIVERSARY JACKETS

Submitted by Dawn Humphreys

The jackets ordered during our party will be available at our next meeting. Please pick yours up. There are three people who ordered jackets at the picnic and have not paid for them. The Northcutt's have been very patient. Our agreement has been payment upon order, so please, PLEASE (you know who you are) bring your check or send it made out to Chuck Northcutt to this meeting, or talk to the Humphreys to make other arrangements.

SUNSPOT CYCLE: A NEW BEGINNING

(from Science News, 9-16-95) Submitted by Ermanno/N7VIQ

Mottling the sun like dark blemishes, sunspots are associated with strong magnetic fields and huge flares. Last month's discovery of three sunspots with unusual characteristics heralds the beginning of a new cycle for these mysterious objects.

Sunspots typically last for only a few days, but the rate at which the sun generates them rises and falls through roughly an 11-year period. At the beginning of each new cycle, these solar blemishes emerge at a relatively high latitude - about 30 degrees - and have the opposite magnetic polarity of sunspots from the last cycle.

A sunspot detected Aug. 12 at the Big Bear Solar Observatory in Big Bear City, Calif., exhibited both of these telltale features, prompting observatory director Harold Zirin to announce that a new cycle had started. With only one such sunspot observed, some researchers were dubious, he notes. But the detection of two other sunspots the following week clinched the interpretation, he says.

One of the spots occurred near the equator, and researchers might have classified it as a leftover from the previous cycle. But the reversal of its magnetic field suggests that it, too, belongs to the new cycle, Zirin says. He notes that solar activity usually peaks 4 to 5 years after the beginning of a cycle.

TECHNICAL COMMITTEE

Submitted by Bob, AA7ZC

The Technical committee has met each of the last 3 months prior to the board meetings, 6:30 PM, Salvation Army headquarters.

We aim to be more visible and accessible club members. One purpose is to make a free flow of technical information/services available to and between members. Two examples of ways to use this info are 1) put new members in touch with Elmers, 2) facilitate contact between members who want to set up special interest or special purpose groups.

One important resource for technical talent is the membership itself. In order to characterize the membership, we decided to set up a database of special interests and talents of members. We are define the information we feel is necessary for this type of database.

Anyone interested in joining us, contact Bob/AA7ZC after 7PM, 232-8247, or Tom/N7VDU, 432-1500, or come to a meeting. We need a leader. If you want to head this committee, contact Bob or Tom, or come to the next meeting!

CHRISTMAS PARTY

Submitted by Don/KC7MPI

December 9, Salvation Army Hdqts. 5-9 PM Potluck, Club provides meat and beverage. Optional \$5.00 gift exchange. RSVP BY NOV. 18 TO 824-5738

EDUCATION & TRAINING

Submitted by Frank, K7VMG

November program: Al/ KB7THX will conduct 9:30 class on operation of MFJ 259 Analyzer.

December program: Frank/K7VMG will conduct a 9:30 class on repeater operation.

Carolyn/WV7Q asks us to name the youth project beginning in Jan, '96, which features building compact size practice CW oscillator.

G.Ray/KB9HKK suggests 90 minute classes - 60 minutes regs and theory, 30 minutes CW. Conducting full classes is in talking stage, but hope to start some in near future. Frank/K7VMG wants to conduct classes, but is waiting for his retirement 11-15-95. May start in spring, 1996.

Cursory interpretation of survey results:
Modes of interest are SSB, FM, CW, Packet.
Bands used most often - 80 meters thru 70
cm., not new HF bands.

Favorite on-air activities - Ragchewing, Nets, Repeaters, DX, Emergency, Public Service, Contests.

Would like to know more about "just about everything, equally. We have a real thirst for more knowledge about all facets of Amateur Radio.

More Social Activities by almost 2 to 1!
License upgrade classes by almost 2 to 1!
Several members believe we spend too much time on business, not enough on Ham radio.

WANTED 220 HT AI/KB7QQW 868-9437

M&K MEMORABILIA

In the sixties, when the FCC received ham radio TVI complaints, they sent them to the Mike & Key's "Seattle Southend Technical Asistance Committee". Frank (K7VMG) and Sully (W7EOP) called at a home near the airport that had a complaint. Even though the ham, who lived across the street, wasn't home, the couple was able to show the committee the interference that he was causing. The TV went "cha-Chink, Cha-chink, cha-chink." It was so far out of tune, that it was picking up the runway beacon. It took about 20 minutes to convince them to let the members tune the TV. "We don't touch that!" After they got every station tuned, and explained that the TV was actually picking up the airport beacon, the couple decided they should sue the airport.

LIVE A HAPPY LIFE

Submitted by Gib/W7JIE

In our world today, so many people seem to cause others a great deal of "Stress". Or harm. Or misery. Or a desire to "get even"

No doubt you've seen the guy make a left turn right in front of you without using his turn signals. Or he follows your exhaust pipe with six inches to spare. His horn is his right-of-way signal.

How about those who break into a conversation without even a "pardon me". or use bad language in mixed crowds. Smoke in closed places. Drop garbage or foul up the place without regard.

It just seems to me that the general level of courtesy has fallen to a very low level in America. Not that I'm any white knight either. We all have our faults. Some seem to gather more than others. But I ran into a series of statements that are very appropriate today. Think about this line of advice and apply it to yourself:

- 1. If you open it, close it.
- 2. If you turn it on, then turn it off.
- 3. If you borrow it, return it.
- 4. If you move it, put it back.
- 5. If you break it, admit it.
- 6. If it's none of your business, then don't ask questions.
- 7. If you unlock it, lock it back up.
- 8. If you can't fix it, call someone who can.
- 9. If you think it's valuable, take good care of it.
- 10. If you don't know how to operate it, leave it alone.
- 11. If it belongs to someone else, get their permission to use it.
- 12. If you make a mess, clean it up.
- 13. If someone else is talking, keep your mouth closed!
- 14. If there is doubt about right-of-way, give it to the other party.
- 15. If you need to be there on time, start earlier.
- 16. If you don't know where it goes, ask!

Wish I could print this on stiff paper so you could carry it on your person at all times.

Ed Note: I kept a list similar to this on the refrigerator when my sons were growing up. Here's one more—If it works, don't fix it!!

ED NOTE: Please advise me of any changes in call sign, license class, name, address, phone #, errors on roster, etc. It's difficult to make the changes/corrections if I'm not informed!!! Thanks.



November 12 - December 23, 1995

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Nov 13	Nov 14 7:30pm WWDXC Meeting	Nov 15 7:30pm Club Net on 146.82 Repeater	Nov 16 7:00pm Public Service Committee 7:00pm Public Service Net 146.82 7:30pm PARS Meeting	Nov 17	Nov 18 10:00am Club Meeting 1:00pm VE Exams
Nov 20	Nov 21 7:30pm Long Range Planning	Nov 22 7:30pm Club Net on 146.82 Repeater	Nov 23 Thanksgiving	Nov 24	Nov 25
Nov 27	Nov 28 7:30pm Club Board Meeting	Nov 29 7:30pm Club Net on 146.82 Repeater	Nov 30 7:00pm Public Service Net 146.82	Dec 1	Dec 2 9:00am Boeing ARC Meeting 1:00pm VE Exams - Kent (KF7VG) 5:00-9:00pm Christmas Party
Dec 4 7:30pm Education and Training Committee	Dec 5	Dec 6 7:30pm Club Net on 146.82 Repeater	Dec 7 7:00pm Public Service Net 146.82 7:30pm Flea Market Meeting	Dec 8	Dec 9 8:00am SeaTac Repeater Group 10:00am VE Exams - Riverside Inn 1:00pm NAPRA Meeting
Dec 11	Dec 12 7:30pm WWDXC Meeting	Dec 13 7:30pm Club Net on 146.82 Repeater	Dec 14 7:00pm Public Service Net 146.82	Dec 15	Dec 16 10:00am Club Meeting 1:00pm VE Exams
Dec 18	Dec 19	Dec 20 7:30pm Club Net on 146.82 Repeater	Dec 21 7:00pm Public Service Committee 7:00pm Public Service Net 146.82 7:30pm PARS Meeting	Dec 22 Winter begins	Dec 23
	Nov 20 Nov 27 Dec 4 7:30pm Education and Training Committee Dec 11	Nov 13 Nov 14 7:30pm WWDXC Meeting Nov 20 Nov 21 7:30pm Long Range Planning Nov 27 Nov 28 7:30pm Club Board Meeting Dec 4 7:30pm Education and Training Committee Dec 11 Dec 12 7:30pm WWDXC Meeting Dec 19	Nov 13	Nov 13	Nov 13