Anchorage Amateur Radio Club

NO REGULAR GENERAL MEETING

IN THIS ISSUE:

New roster for ALL Ham of AARC A Christmas Poem New Officers

Upping Phone Output Ten Db And Much Much More

Officers

President Vice President Secretary

John Orella, KL7LL Randy Vallee, AL7PJ Keith Clark, WL7CSR Richard Block, KL0VP

Treasurer Trustee

Activities Chairman News Letter Editor

TJ Sheffield, KL7TS Edythe Lynn KL7EL Membership Chairman Fred Erickson KL7VC

Past President

John Lynn, KL7CY

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Bruce McCormick WL7YR Mike Borer, WL7CKB Harvey Rookus NL7DK David Stevens KL7EB

One Year Board Members

Hannelore Kelliher, NL7EA William Theuer, KL0OK Jim Tvrdy, KL7CDG Bill Reiter, KL7ITI Peter Bailey, WL7BW Marium Clarke, WL7CFA

AARC web page & Email contact addresses: http://home.gci.net/~lawson/

Webmaster to lawson@gci.net Membership to frederickson@iname.com

News Letter Submissions, Information or corrections:

Submissions must be received 2 weeks before meeting Email: KL0EO@arrl.net Facsimile: 907-338-4791

Mail: 7013 Trafford Ave. Anchorage 99504

KL7G CODE PRACTICE SCHEDULE

Schedule: 7:00am, 10:00am, 4:00pm, 7:00pm, 10:00pm AK time, every day Frequencies: 3575 kHz, 7075 kHz & 145.35 MHz: Sending Speeds: 22 wpm, 15 wpm, 7 wpm

Nets in Alaska:

The following nets are active in South-central Alaska: Alaska Sniper's Net 3.920 MHz 6:00 PM daily Alaska Bush Net 7.093 MHz 8:00 PM daily Alaska Motley Net 3.933 MHz 9:00 PM daily Alaska Pacific Emergency Preparedness Net 14.292 MHz 8:00 AM M-F QCWA net 146.97/.37 repeater Sundays 8:00 PM local 850 No Name Net 146.85/.25 repeater Sundays 8:00 PM Son of Sideband Net 144.20 USB Mondays 9:00 PM local Big City Simplex Net 146.520 FM Tuesdays 8:00 PM local

PARKA net 147.30/.90 repeater Thursdays at 9:00 PM local Anchorage & Mat Valley Area Repeaters

ARES net 147.30/.90 repeater Thursdays at 8:00 PM local

KL7AA systems at Flattop Mt., 2,200 ft 146.94/34 MHz, 80 watts, autopatch, 100/141.3 Hz PL 223.34/224.94, 25 watts, no patch, no PL 444.70/449.70, 25 watts, autopatch, 100/141.3 PL

KL7ION at Mt. Gordon Lyon 3,940 ft

147.30/90, MHz - 80 watts, no patch, no PL

KL7AA, Mt. Alyeska, 2,400 ft.

146.76/16 MHz, 25 watts, no patch, 141.3 Hz PL KL7CC, Anchorage Hillside, SCRC & QCWA

146.97/.37 MHz, 30 watts, autopatch, 103.5 Hz PL KL7DJE at Grubstake Peak, 4,500 ft.

147.09/.69 MHz, 25 watts, no patch, 100 Hz PL

444.925/449.925, 10 watts, no patch, 141.3 Hz PL

KL7JFU, KGB road, MARA club

146.85/.25, autopatch, no PL

KL7AIR Elmendorf, EARS

146.67/.07, 107.2 Hz PL

KL7G West Anchorage & Events 449.65/444.65 MHz, patch, no PL

Anchorage & Mat Valley Simplex Frequencies

146.52 Mhz Calling and Emergency frequency

147.57 / 447.57 (crossband linked) HF spotters & chat

146.49 Mhz Anchorage area simplex chat

146.41 MHz Mat Valley simplex chat

~~~ *HOT LINKS* ~~

Internet Web links, the favorites from our readers

AARC http://home.gci.net/~lawson/

SCRC http://www.home.gci.net/~vallee/scrc.htm

http://www.qsl.net/kl7air **EARS**

MARA http://www.obarr.net/mara/

Moose Horn ARC http://www.alaksa.net/~kl7fg

http://www.qsl.net/alaskaares ARES

http://www.alaska.net/~buchholz KL7J

Fairbanks AARC:

http://ffdlm1mac.uafsom.alaska.edu/aarc/aarc.html

Yukon Amateur Radio Association:

http://www.klondike.com/yara/index.html

HAARP Project:

http://server5550.itd.nrl.navy.mil/projects/haarp/

<< Amateur Radio Reference Library>>

http://www.area-ham.org/library/libindex.html

Hamradio: http://www.hamrad.com/

Solar Terrestrial Activity http://209.130.27.95/solar/

ARRL http://www.arrl.org/

Propagation Report Recording 566-1819

Please let us know if there are other clubs pages or good

starting points that should appear here

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ABACUS RADIO REPAIR

Factory authorized service for: Kenwood, ICOM, Yaesu, Alinco, Amateur radio equipment. Call Jim Wiley, KL7CC (907) 338-0662

Regular HAM Gatherings:

Tuesdays, 11:30 AM to 1:00 PM: Join the gang for lunch and an eyeball QSO at the Royal Fork, "South, on Old Seward Highway.

Saturdays, 7:30 AM: Here is a great way to get started on the week-end come and meet with some of the locals and have a great breakfast at Phillips Restaurant, at the corner of Arctic and International. Great Fun.

THIS MONTH'S EVENTS

NONE THIS MONTH: AARC general meeting at 7:00 PM 1st Friday of the month in the Carr-Gottstein Building, on the APU Campus. Talk in will be on 147.300.

December 5th: VE License Exam 6:30 PM, 1st Tuesday of the month, it has been changed to Hope Cottage at 540 W International in the Board Room. Bring photo ID, copy of license (if any) and any certificates of completion.

December 5th: EARS general meeting at 7:00 PM 1st Tuesday of the month, in the basement of Denali Hall (building 31-270) on Elmendorf AFB. Talk in on 147.67/.07 simplex.

(None this month) SCRC meeting at 7:00 PM the 2nd Friday of the month at Denny's on Debarr & Bragaw. Talk in on 147.57 simplex.

December 9th: VE License Exams at 2:00 PM. 2nd Saturday of the month at Hope Cottage 540 W. International in the Board Room. Be sure to bring photo ID, copy of license (if any) and any certificates of completion.

December 8th: ALL HAM Christmas Party at the Northern Lights Inn, \$15 per person 7:00 Dinner, contact KL7CY (337-1091) or KL7CC (338-0662) for reservations.

December 12th: AARC Board meeting at 7:00 PM 2nd Tuesday of the month at Hope Cottage 540 W. International in the Board Room.

December 14th: Moosehorn ARC general meeting at 7:00 PM every other Thursday in the Soldotna Borough Offices on North Binkley. Talk in on 146.88 repeater or 147.42 simplex.

December 16th: ARES Planning Committee 9:30 AM to 12:00 PM. 3rd Saturday of the month. Will be held at Alyeska Building on Bragaw Street.

December 16th: PARKA Meeting at 11:00 AM. Saturday of the month at Peggy's, across from Merrill Field

December 28th: Moosehorn ARC general meeting at 7:00 PM every other Thursday in the Soldotna Borough Offices on North Binkley. Talk in on 146.88 repeater

December 29th: MARA meeting at 7PM the last Friday of the month at the MTA office in Palmer.

ALL HAM CHRISTMAS PARTY

Get your reservations in NOW!! \$15.00 per person, pay at door - BUT - you MUST have a reservation!!!

When: Friday, December 8th, at the Northern Lights Hotel, on Northern Lights Blvd, between "C" and Arctic. No host bar opens at 6:30 PM, buffet meal at 7:00 PM.

Featuring: "Chinese" gift exchange (bring a wrapped, inexpensive gift (no boar anchors, please) for each person in your party) - Also: "Who am I?" game, with several prizes for the winners

Menu: Roast beef in gravy, Herb Chicken Breast, Baked Halibut, Salads, Veggies, Rolls and butter, Cheesecake with Strawberry Sauce, Coffee

Reservations: Call or email to:

John Lynn, KL7CY, (337-1091 - johnlynn@gci.net) Jim Wiley, KL7CC (338-0662 - jwiley@alaska.net)

If you have not made reservations, or can't remember if you have or have not, please check with Jim or John immediately! We have to let the hotel know how many to expect, so they know how many meals to prepare and how many places to set!

A CHRISTMAS POEM

WAS THE NIGHT OF CHRISTMAS, BUT I JUST COULDN'T SLEEP

I TRIED COUNTING BACKWARDS, I TRIED COUNTING SHEEP.

THE LEFTOVERS BECKONED - THE DARK MEAT AND WHITE

BUT I FOUGHT THE TEMPTATION WTH ALL OF MY MIGHT

TOSSING AND TURNING WITH ANTICIPATION THE THOUGHT OF A SNACK BECAME INFATUATION.

SO, I RACED TO THE KITCHEN, FLUNG OPEN THE DOOR

AND GAZED AT THE FRIDGE, FULL OF GOODIES GALORE.

I GOBBLED UP TURKEY AND BUTTERED POTATOES, PICKLES AND CARROTS, BEANS AND TOMATOES.

I FELT MYSELF SWELLING SO PLUMP AND SO ROUND,

'TIL ALL OF A SUDDEN, I ROSE OFF THE GROUND.

I CRASHED THROUGH THE CEILING, FLOATING INTO THE SKY

VITH A MOUTHFUL OF PUDDING AND A HANDFUL OF PIE.

BUT, I MANAGED TO YELL AS I SOARED PAST THE TREES

HAPPY EATING TO ALL - PASS THE CRANBERRIES, PLEASE.

MAY YOUR STUFFING BE TASTY, MAY YOUR TURKEY BE PLUMP. MAY YOUR POTATOES 'N GRAVY HAVE NARY A LUMP, MAY YOUR YAMS BE DELICIOUS MAY YOUR PIES TAKE THE PRIZE, MAY YOUR CHRISTMAS DINNER STAY OFF OF YOUR THIGHS.

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OK boys and gals, here we go taking a trip into the past. Hope that you'all enjoy this as much as I did when I read it. This article is courtesy of Rick and Lil Marvin. Enjoy!

Upping Phone Output Ten Db RADIO

Following publication of an article by Ray Dawley, Technical Editor of RADIO, on the subject of high pass filters for speech amplifiers, we received a letter from Sam Lutz, W9TJB, of West Lafayette, Indiana suggesting that a 10 db improvement could be obtain in a phone transmitter by using "scientific volume compression and expansion". We were inclined to say, "and just what is that?" Here is an outline of the system as in actual use commercially.

In ordinary amateur practice, the amount of modulation signal that may be transmitted is limited to the point where the carrier is modulated 100% of its capability (or at least it should be). At this point, the weaker speech components are considerably below the peak value of strong syllables, but nevertheless, these weak elements of the speech are very important to the understandability and apparent volume of the speech when received at a distant point. This is well illustrated by the increase in received strength when the modulation percentage is run up to the point where the peaks are chopped off because of over modulation. It is obvious, then, that anything that will permit parts of the voice without causing the peaks to over modulate will increase the phone transmitter's average output, and even more important, increase the value of the weak consonants.

Radio noise often limits transmission, especially for the weaker voice waves. The range of intensities is about 30 db even when the volume is controlled manually to the point where strong peaks overload the transmitter. A reduction in this 30-db range will of course increase the average amplitude of the modulation, maintaining 100% for the peaks. Such a reduction can be obtained through the use of a compressor.

Volume indicators are universally used in broadcast service, and should widely be found in amateur stations. These indicators are adjusted to be insensitive to extremely high peak voltages of short duration. Their maximum deflection is proportional approximately to the mean power in the syllable. The ear, it has been found, does not detect amplifier overloading on the extremely high peaks of short duration. This device does not indicate the weakness of some components of the voice train.

The sound energy in the speech amplifier is made up of tones of different pitch and amplitude. There are two limits to the range of volumes that a system can transmit. The point at which overloading appreciably impairs the signal quality, or endangers the life of the equipment - and legally, 100% of the modulation capability of the transmitter sets the upper limit. The lower limit is set mainly by the amount of interference, which may appreciably mask the signal. This limit in a radio circuit is largely set by the received signal level, which may be below that of thermal noise in the antenna and receiving apparatus, or by the strength of interfering stations. Thus, even in the absence of static there is a definite lower limit to the received volume satisfactory for communication.

At present, the only commonly used method of reducing the range of signal intensities is the gain control adjusted to load the transmitter to capacity on occasional peaks. However, even with the speech adjusted to constant volume, there are large variations in signal adjusted to constant volume there are large variations in signal intensity from syllable to syllable and within each syllable. The energy

of some consonants as compared with the stronger vowels is down about 30 db. In the case of commercial telephone sets, a steady noise 30 db below the energy in the strongest parts of the speech syllables produces an appreciable impairment in transmission efficiency. If this range of 30 db can be compressed to 10 db, it is evident that the signal will be stronger, more understandable in the presence of noise, or the transmitter power can be reduced for equal communication efficiency.

Available Methods to Reduce Range

The problem can be approached in several ways. As many of the weaker consonants have their chief energy contribution in the upper part of the speech band, a simple equalizer which relatively increase the energy of the higher frequency consonants before transmission and another which restored the frequency-energy relations after transmission, should be found of value. Commercial tests have confirmed this expectation to some degree.

Another general method of approach is that of amplitude distortion in which the weaker portions of the syllables are automatically increased in intensity in some inverse proportion to their original strength. Such a device, which may be considered approximately as a control varying as a function of the signal envelope, has been developed. This is called a *compressor*; the receiving device, an *expander*; and the complete system, the *compandor*.

The Compressor Circuit

The variable loss in the compressor consists of a high impedance pad in the circuit through two high radio transformers. A pair of control tubes connected in push-pull shunts the high resistances. The push-pull arrangement is desirable for two reasons. It reduces the even order of nonlinear distortion effects caused by the shunt path on the transmitted speech; and it balances out the control impulse and the unfiltered rectified speech energy from the control path which might otherwise add distortion to the speech. A control voltage taken from the output side through a linear rectifier and filters condenser controls the impedances of the tubes. With this circuit, the percent change in relative speech voltages in passing through the compressor is the same at all points in the intensity range.

The expander circuit employs restores kept small compared with those of the control tubes. This circuit is placed at the receiving end to reproduce the normal relationship, which it will do when the expansion ratio is the same as the compression ratio. When a compressor and expander having the same ratios are put in tandem even with the transmitter, space and receiver between-the output and input intensity ranges are the same. Such devices have been built with a compression ratio of 1/2 and expansion ratio of 2, the compressor operating substantially linearly over a 45 db range of imputes and the expander over a 22.5 db range, sufficient to reach over the normal 30 lb. of voice intensities at

constant volume. The new range of intensities is reduced to 15 db before expansion.

Tests show that a volume indicator on the output of the compressor reads from 1 to 2 db higher than on uncompressed speech at its input. Compressed speech sounds slightly unnatural, but the effects of compression upon articulation in the absence of noise are negligible. The compressor can be sued on the transmitter without the expander at the receiving end.

What the Expander Does

In considering the action of the expander it is important to note that the compressor puts in all of the improvement of signal-to-noise ratio. Considering any narrow interval of speech the insertion of the expander doe not change the signal-to-noise ratio. The desirability of using it depends on other reasons. First, it restores the naturalness of the speech sounds. Second, the apparent magnitude of the noise is greatly reduced since noise comes in at full strength only when speech is louder and is reduce by the loss introduced by the expander at times when speech is louder and is reduced by the loss introduced by the expander at items when the energy is low between syllables. When no speech is being transmitted, noises up to a certain limit, which corresponds to the maximum energy in received speech, are reduced in amounts varying from about 20 db to zero depending on their value.

For a circuit having somewhere near the limit of static, the use of the compandor allows on the average 5 db more noise than when it is not used. When the noise is less than this limit, somewhat greater improvements are obtained, ranging up to at least 10 db.

The particular values of compression ad expansion ratio were chosen initially for the relative ease in the design of the system with commercially available vacuum tubes whose characteristics closely approximated a parabola.

There are two major sources of possible speech distortion, which must be considered in the design and use of these devices in addition to those ordinarily present. The first is due to the non-linear characteristics of the vacuum tubes used for controlling. The even order distortion terms are largely balanced out by using two tubes in a push-pull arrangement. Having speech pass through a control tubes at a sufficiently low level minimizes the remaining distortion. In the operating ranges for the devices described, the harmonics of a single-frequency tone are 30 db or more below the fundamental. The reproduction according to an examination of oscillograms is perfect when a low-pass filter is used in the control circuit.

A compandor system of this sort has been in service on the New York-London long-wave radiotelephone circuit since about July 1, 1932. Tests have indicated that its presence does not affect the quality appreciably. Its use has increased the time that the circuit can be used for service. In amateur work, it might alternately be applied to a reduction of the transmitter power.

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Ok everyone here is the new roster for ALL Hams that are paid members of AARC. It is courtesy of John Lynn, KL7CY and Fred Erickson, KL7VC.

AA0NN	Wolfe, John	Elmendorf AFB, AK
AL0U	Morton , Arthur	Anchorage, AK
AL7AW	McKinnie, Rob	Parker, TX
AL7BB	Capers, Bill	Anchorage, AK
AL7BK	Dunbar, Lance	Anchorage, AK
AL7BN	Michael, Sue	Anchorage, AK
AL7CA	Pratt, Frank	Anchorage, AK
AL7CN	Edge, Erv	Mare Island, CA
AL7CV	Delancy, April	Byrantown, MD
AL7CY	Don, Peggy	Anchorage, AK
AL7EB	Cole, Edward	Nikiski, AK
AL7FG	Marshall, Dianne	Fairbanks, AK
AL7FI	Runyan, Rachel	Chugiak, AK
AL7FJ	MacGregor, Shari	Big Lake, AK
AL7FS	Larsen, Jim	Anchorage, AK
AL7HX	Eaton, Eugene	Anchorage, AK
AL7IG	Phifer, William	Anchorage, AK
AL7IM	Stewart, Eric	Anchorage, AK
AL7IR	McKenzie, Gus	Anchorage, AK
AL7JT	Barker, William	Anchorage, AK
AL7KK	Wilson, Robert	Big Lake, AK
JL7LA	Mears, John	Palmer, AK
AL7LH	Wilkie, David	Eagle River, AK
AL7ML	Smith, Rob	Chugiak, AK
AL7O	McCrorey, Gary	Anchor Point, AK
AL7OA	Meyer, Barbara	Anchorage, AK
AL7OG	Meyer, Jr, John	Anchorage, AK
AL7OK	Hendricks, John	Anchorage, AK
AL7PB	Saunders, W. Mel	Anchorage, AK
AL7PJ	Vallee, Randy	Anchorage, AK
AL7RI	Cohen, Larry	Anchorage, AK
K1GAX	Rumery, Bryce	Cape Elizabeth, ME
K1ZAT	Delancy, JD	Byrantown, MD
K4SBI	Beasley, John	Palmer, AK
K7JEP	Fredstrom, M. Neal	Sandpoint, ID
K7TPN	Phelps, Richard	Cincinnati, OH
KC2BYX	Williams, Paul	Willow, AK
KK6MR	Greene, Ken	Grass Valley, CA
KK7GN	Nightingale, Gregory	Vancouver, WA
KL0BB	Carroll, Jon	Anchorage, AK
KL0DR	Dowling, Richard	Anchorage, AK
KL0DU	Leng, Foster	Anchorage, AK
KL0DY	Plack, Richard	Palmer, AK
KL0FK	Eastman, Cornelius	Anchorage, AK
KL0HG	Morton, Jeanette	Anchorage, AK
KL0HN	Wilcox, Donald	Anchorage, AK
KLOHZ	Meyer, Christopher	Anchorage, AK
KL00D	Feaster, Cathy	Anchorage, AK
KL0PJ	McIntyre, James	Eagle River, AK
KL0QH	King, Walter	Anchorage, AK

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KL0QK	Theuer, William	Anchorage, AK
KL0QQ	Stuart, Thomas	Eagle River, AK
KL0QV	McGuire, Phillip	Anchorage, AK
KL0QW	Mannie, Phillip	Anchorage, AK
KL0SH	Ewing, Ben	Anchorage, AK
KL0SK	Ross, William	Anchorage, AK
KL0TS	Duncan, Woody	Wasilla, AK
KL0UP	Daniel, Marion	Anchorage, AK
KL0UQ	Maze, Kyle	Anchorage, AK
KL0US	Borer, Joel	Anchorage, AK
KL0UT	Shafer, Richard	Anchorage, AK
KLOUV	Boynton, David	Anchorage, AK
KL0VP	Block, Richard	Anchorage, AK
KL0VZ	Jensen, Steve	Anchorage, AK
KL4E	Bledsoe, Craig	Eagle River, AK
		Anchorage, AK
KL4T	Gould, Roy	
KL5T	Petty, Kent	Eagle River, AK
KL7AM	Hisamoto, Robert	Fairbanks, AK
KL7ANV	Soldin, Emitt	Anchorage, AK
KL7AP	Mallay, Betty	Columbia, MD
KL7BB	Balzarini, Bill	Auburn, WA
KL7BCH	Olendorff, Ed	Apache Junction, AZ
KL7BGZ	Thalaker, Neil	Anchorage, AK
KL7BI	Greeley, Glen	Pocatello, ID
KL7CC	Wiley, Jim	Anchorage, AK
KL7CCI	Cadman, Ted	Anchorage, AK
KL7CDG	Tvrdy, Jimmie	Anchorage, AK
KL7CH	Hammer, Clarence	Anchorage, AK
KL7CMQ	Coleman, Charles	Anchorage, AK
KL7CY	Lynn, Jr, John	Anchorage, AK
KL7DC	Gehring, Steven	Eagle River, AK
KL7DU	Tucker, Edwin	Cottonwood, AZ
KL7DV	Strother, George	Wasilla, AK
KL7DZE	Naumann, Mike	Anchorage, AK
KL7EB	Stevens, David	Anchorage, AK
KL7EJ	Beaugard, P	Anchorage, AK
KL7EL	Lynn, Edythe	Anchorage, AK
KL7EM	Scott, Russell	Canyon, TX
KL7ENP	Woolsey, Robert	Hansville, WA
KL7EQX	Plumb, Earl	Anchorage, AK
KL7ERV	Christensen, Robert	Wasilla, AK
KL7EU	Ronne, Jr, Marshall	Seward, AK
KL7EWR	Fowler, June	Anchorage, AK
KL7FD	Delp, Kenneth	Anchorage, AK
KL7FE	Erickson, Fred	Anchorage, AK
KL7FHX	Dowding, Fielder	Anchorage, AK
KL7FK	Graham, Fred	Henderson, NV
KL7FS	Chase, Arthur	Stanwood, WA
KL7GBC	Walters, Jr, Benj	Anchorage, AK
		Cooper Landing, AK
KL7GGT	Gleason, D.B.	
KL7GN	Nightingale, Gordon	Anchorage, AK
KL7GNP	Bierman, John	Anchorage, AK
KL7GQ	Hansen, Roy	Valdez, AK
KL7GRT	Collison, Les	Easton, WA
KL7HAB	Lawrence, David	Anchorage, AK
KL7HD	Hadley, Mark	Anchorage, AK
KL7HFM	Wegmer, Fred	Fowlerton, TX

KL7HFQ	Hansen, Roger	Big Lake, AK	KL7TQ	Kelliher, Mark	Eagle River, AK	
KL7HH	Lane, Kenneth	Anchorage, AK	KL7TS	Sheffield, TJ	Anchorage, AK	
KL7HHO	Groomer, Wayne	Wasilla, AK	KL7UQ	Soltis, Francis	Chugiak, AK	
KL7HHR	Haynes, Al	Chickaloon, AK	KL7VB	Gilmore, Harry	Anchorage, AK	
KL7HJD	Steves, Harold	Roseburg, OR	KL7VT	Belfield, Jean	Gresham, OR	
KL7HJZ	Twiggs, John	Greenwood, SC	KL7WM	Stevens, Daniel	Kent, WA	
KL7HKH	Shafer, Rik	Kent, WA	KL7XO	Estes, Steven	Fairbanks, AK	
KL7HO	Steward, Arlene	Anchorage, AK	KL7XR	Richards, John	Anchorage, AK	
KL7HOT	Weed, Roger	Duluth, GA	KL7YF	Marvin, Rick	Anchorage, AK	
KL7HQJ	Farney, Harold	Spokane, WA	KL7YZ	Spencer, Robert	Anchorage, AK	
KL7IAF	Tessier, Lorraine	Anchorage, AK	KL7ZJ	Morrison, Steven	Anchorage, AK	
KL7IBZ	Laws , Claude	Olympia, WA	KL7ZO	Gamel, William	Anchorage, AK	
KL7IFK	Howell, Don	Yuma, AZ	KL7ZP	Gamel, Beth	Anchorage, AK	
KL7IKX	Dickinson, Douglas	Anchorage, AK	KL7ZV	Bender, James	Prescott, AZ	
KL7IMD	Hilton, James	Eagle River, AK	N2TSH	Cohen, Caren	Anchorage, AK	
KL7IOL	Dennis, Richard	Mountain Village, AK	N7CFF	Monfore, Ray	Eagle River, AK	
KL7IPV	Drake, Jr, Francis	Las Vegas, NV	NF7T	Turner, Glen	Purcell, OK	
KL7ITI	Reiter, William	Anchorage, AK	NL7A	Jones, John	Anchorage, AK	
KL7IWC	Walter, Lawrence	Juneau, AK	NL7AC	Soltis, Debbie	Chugiak, AK	
KL7IWV	Gellert, Hubert	Anchorage, AK	NL7AD	Rossini, Guy	Anchorage, AK	
KL7IWY	Pratt, Dickson	Harrison, ID	NL7AJ	Piendiadz, John	Harleyville, SC	
KL7IZL	Gilbert, Orv	Anchorage, AK	NL7AV	Hilton, Sue	Eagle River, AK	
KL7IZZ	Steward, Harley	Anchorage, AK	NL7BE	Rexford, Fenton	Kaktovik, AK	
KL7JDR	Mills, Bruce	Soldotna, AK	NL7C	Moody, Jr, James	Anchorage, AK	
KL7JE	Erickson, Joan	Anchorage, AK	NL7D	Michael , Tim	Anchorage, AK	
KL7JES	Preston, Karin	Anchorage, AK	NL7DK	Rookus, Harvey	Anchorage, AK	
KL7JFJ	Ward, William	Anchorage, AK	NL7DL	Marvin, Lillian	Anchorage, AK	
KL7JGN	Fuller, Lloyd	Anchorage, AK	NL7DM	Laws, Mary	Olympia, WA	
KL7JGU	Jennings, Jay	Seattle, WA	NL7DN	Strait, Dennis	Anchorage, AK	
KL7JIG	Brasseur, Herbert	Mirror Lake, NH	NL7EA	Kelliher, Hannelore	Eagle River, AK	
KL7JIJ	Minton, James	Anchorage, AK	NL7FY	Searcy, Linda	Olympia, WA	
KL7JIM	Wilcox, Stephen	Anchorage, AK	NL7FZ	Head, Beth Daniel	Cary, NC	
KL7KB	Feaster, James	Anchorage, AK	NL7GA	Kiester, Tom	Anchorage, AK	
KL7KI	Thomas, Bill	Spring Creek, PA	NL7HT	Sommer, Robert	Kodiak, AK	
KL7LA	Hanrath, Rosemary	Willow, AK	NL7K	Easterly, Lyle	Anchorage, AK	
KL7LL KL7LL	Orella, John	Wasilla, AK	NL7KN	Hammer, Dianne	Anchorage, AK	
KL7LO	Epstein, David	Anchorage, AK	NL7NC	Lawson, John	Anchorage, AK	
KL7MD	Heath, Jasper	Wasilla, AK	NL7NN	Woods, Susan	Anchorage, AK	
KL7ML	Schroeder, Steve	Yuba City, CA	NL700	Johnson, Gerard	Anchorage, AK	
KL7MQ	Curman, Joyce	Kennesaw, GA	NL7PJ	Jendryk, Paul	Anchorage, AK	
KL7NG	Menard, Bimji	Anchorage, AK	NL7RY	Sheley, Roger	Anchorage, AK	
KL7NK	Talbott, Joseph	Anchorage, AK	NL7SK	Comfort, Timothy	Palmer, AK	
KL7NR	Moody, Catherine	Eagle River, AK	NL7SP	Eggleston, Ken	Bethel, AK	
KL7OA	Preston, Charles	Anchorage, AK	NL7TZ	Rutigliano, Thomas	Wasilla, AK	
KL7OK	Morris, Jr, Eugene	Anchorage, AK	NL7UQ	Baker, Jr, Robert	Columbia, MD	
KL7OR KL7OR	Edge, Ellen	Anchorage, AK Anchorage, AK	NL7UY	McLaughlin, Cathleen	Palmer, AK	
KL7OK KL7PC	Gunson, Robert	Eagle River, AK	NL7VP	Maher, Edward	Anchorage, AK	
KL7QS	Neeley, Martha	Copperas Cove, TX	NL7VR	Carraway , Simon	Anchorage, AK	
KL7QS KL7QY	Reynolds, Sherman	Anchorage, AK	NL7WV	Erickson, Jana	Anchorage, AK	
KL7QT KL7QZ	Bury, John	Anchorage, AK	NL7WW	Murray, John	Eagle River, AK	
KL7QZ KL7SA	Maney, Rodney	Anchorage, AK	W1JM	Missal, William	Anchorage, AK	
		Ft Duchesne, UT	W4IGM	Shull Sr, John	Anchorage, AK	
KL7SD	Larson, Kent	Ocean Shores, WA	W4VFE	Weatherly, Marv	Alameda, CA	
KL7SE	Kletka, Fred	Anchorage, AK	W5AHO	Neeley, Walter	Copperas Cove, TX	
KL7SH	Day, Richard		W5AN	Rosenthal, Herbert	Albuquerque, NM	
KL7SK	Taylor, Art	Tenino, WA	W7ICI	Lupo, Bob	Eagle River, AK	
KL7SV	Faultersack, Robert	Redmond, WA	WAIACN	Carty, John	Anchorage, AK	
KL7TO	Giebel, Alfred	Anchorage, AK	WAIACN	Carty, John	menorage, Aix	

WA7RF	Fisher, Robert	Ford, WA	AL7BN	Michael, Sue	Anchorage, AK
WA7USX	McLaughlin, Michael	Palmer, AK	AL7CA	Pratt, Frank	Anchorage, AK
VA9C	Vogel, Dave	Evansville, IN	AL7CN	Edge, Erv	Mare Island, CA
WL7AFN	Harris, Bill	Salem, OR	AL7CV	Delancy, April	Byrantown, MD
WL7AME	Ganopole, Jerry	Anchorage, AK	AL7CY	Don, Peggy	Anchorage, AK
WL7AQ	Stevens, Dennis	Anchorage, AK	AL7EB	Cole, Edward	Nikiski, AK
WL7AXI	Faultersack, Beverly	Redmond, WA	AL7FG	Marshall, Dianne	Fairbanks, AK
WL7BD	OBarr, Dan	Wasilla, AK	AL7FI	Runyan, Rachel	Chugiak, AK
WL7BF	Spatzek, Paul	Anchorage, AK	AL7FJ	MacGregor, Shari	Big Lake, AK
WL7BYL	Steward, Kenneth	Anchorage, AK	AL7FS	Larsen, Jim	Anchorage, AK
WL7CDJ	Filley, David	Anchorage, AK	AL7HX	Eaton, Eugene	Anchorage, AK
WL7CES	Leghorn, Timothy	Anchorage, AK	AL7IG	Phifer, William	Anchorage, AK
WL7CJM	McCormick, Scott	Fallbrook, CA	AL7IM	Stewart, Eric	Anchorage, AK
WL7CKB	Borer, Michael	Anchorage, AK	AL7IR	McKenzie, Gus	Anchorage, AK
WL7CL	OBarr, Jr, Dan	Wasilla, AK	AL7JT	Barker, William	Anchorage, AK
WL7CLX	Horvath, Daniel	Anchorage, AK	AL7KK	Wilson, Robert	Big Lake, AK
WL7CMZ	Kelly, Kevin	Anchorage, AK	AL7LA	Mears, John	Palmer, AK
WL7COD	Hanshew, Adam	Wasilla, AK	AL7LH	Wilkie, David	Eagle River, AK
WL7CPG	OConnor, Richard	Anchorage, AK	AL7ML	Smith, Rob	Chugiak, AK
WL7CPX	Kotsch, Richard	Indian, AK	AL7O	McCrorey, Gary	Anchor Point, AK
WL7CSR	Clark, Harold (Keith)	Anchorage, AK	AL7OA	Meyer, Barbara	Anchorage, AK
WL7D	Bowlin, Frank	Aptos, CA	AL7OG	Meyer, Jr, John	Anchorage, AK
WL7EN	Kelly Jr, Robert	Anchorage, AK	AL7OK	Hendricks, John	Anchorage, AK
WL7GW	Gilbert, Bobbie	Anchorage, AK	AL7PB	Saunders, W. Mel	Anchorage, AK
WL7IM	Worchester, Leonard	Anchorage, AK	AL7PJ	Vallee, Randy	Anchorage, AK
WL7IN	OBarr, Gretchen	Wasilla, AK	AL7RI	Cohen, Larry	Anchorage, AK
WL7J	Warner, Wilmot	Margate, FL	K1GAX	Rumery, Bryce	Cape Elizabeth, ME
WL7JA	Wilke, Patrick	Anchorage, AK	K1ZAT	Delancy, JD	Byrantown, MD
VL7JM	Paerels, Eric	Anchorage, AK	K4SBI	Beasley, John	Palmer, AK
WL7KL	Flygenring, Gunnar	Anchorage, AK	K7JEP	Fredstrom, M. Neal	Sandpoint, ID
WL7KS	Saunders, Karen	Anchorage, AK	K7TPN	Phelps, Richard	Cincinnati, OH
WL7KZ	Carraway, Connie	Anchorage, AK	KC2BYX	Williams , Paul	Willow, AK
WL7LA	Carraway, Al	Anchorage, AK	KK6MR	Greene, Ken	Grass Valley, CA
WL7MC	Carraway, William	Anchorage, AK	KK7GN	Nightingale, Gregory	Vancouver, WA
WL7NH	Nightingale, Patricia	Anchorage, AK	KL0BB	Carroll, Jon	Anchorage, AK
WL7RY	Thorsness, Gerianne	Anchorage, AK	KL0DR	Dowling, Richard	Anchorage, AK
WL7S	Sockolosky, Tom	Martinsville, NJ	KL0DU	Leng, Foster	Anchorage, AK
WL7TY	Preston, Terry	Fairbanks, AK	KL0DY	Plack, Richard	Palmer, AK
WL7WH	Prescott, Robert	Anchorage, AK	KL0FK	Eastman, Cornelius	Anchorage, AK
WL7YR	McCormick, Bruce	Anchorage, AK	KL0HG	Morton, Jeanette	Anchorage, AK
WL7ZT	OConnor, Kristina	Anchorage, AK	KL0HN	Wilcox, Donald	Anchorage, AK
WL7ZU	OConnor, Frank	Anchorage, AK	KL0HZ	Meyer, Christopher	Anchorage, AK
WX7P	Morgan, Wilse	Camp Verde, AZ	KL0OD	Feaster, Cathy	Anchorage, AK
	Bouden, Jeff	Anchorage, AK	KL0PJ	McIntyre, James	Eagle River, AK
	Cadman, Belva	Anchorage, AK	KL0QH	King, Walter	Anchorage, AK
	Clough, John	Anchorage, AK	KL0QK	Theuer, William	Anchorage, AK
	Cope, Claudia	Anchorage, AK	KL0QQ	Stuart, Thomas	Eagle River, AK
	Hauser, Sandy	Wasilla, AK	KL0QV	McGuire, Phillip	Anchorage, AK
	Johnson, Richard	Anchorage, AK	KL0QW	Mannie, Phillip	Anchorage, AK
	Stewart, Robert	Anchorage, AK	KL0SH	Ewing, Ben	Anchorage, AK
	Tvrdy, Elizabeth	Anchorage, AK	KL0SK	Ross, William	Anchorage, AK
			KL0TS	Duncan, Woody	Wasilla, AK
AA0NN	Wolfe, John	Elmendorf AFB, AK	KL0UP	Daniel, Marion	Anchorage, AK
AL0U	Morton, Arthur	Anchorage, AK	KL0UQ	Maze, Kyle	Anchorage, AK
AL7AW	McKinnie, Rob	Parker, TX	KL0US	Borer, Joel	Anchorage, AK
AL7BB	Capers, Bill	Anchorage, AK	KL0UT	Shafer, Richard	Anchorage, AK
AL7BK	Dunbar, Lance	Anchorage, AK	KL0UV	Boynton, David	Anchorage, AK

KL0VP	Block, Richard	Anchorage, AK	KL7IFK	Howell, Don	Yuma, AZ
KL0VZ	Jensen, Steve	Anchorage, AK	KL7IKX	Dickinson, Douglas	Anchorage, AK
KL4E	Bledsoe, Craig	Eagle River, AK	KL7IMD	Hilton, James	Eagle River, AK
KL4T	Gould, Roy	Anchorage, AK	KL7IOL	Dennis, Richard	Mountain Village, AK
KL5T	Petty, Kent	Eagle River, AK	KL7IPV	Drake, Jr, Francis	Las Vegas, NV
KL7AM	Hisamoto, Robert	Fairbanks, AK	KL7ITI	Reiter, William	Anchorage, AK
KL7ANV	Soldin, Emitt	Anchorage, AK	KL7IWC	Walter, Lawrence	Juneau, AK
KL7AP	Mallay, Betty	Columbia, MD	KL7IWV	Gellert, Hubert	Anchorage, AK
KL7BB	Balzarini, Bill	Auburn, WA	KL7IWY	Pratt, Dickson	Harrison, ID
KL7BCH	Olendorff, Ed	Apache Junction, AZ	KL7IZL	Gilbert, Orv	Anchorage, AK
KL7BGZ	Thalaker, Neil	Anchorage, AK	KL7IZZ	Steward, Harley	Anchorage, AK
KL7BI	Greeley, Glen	Pocatello, ID	KL7JDR	Mills, Bruce	Soldotna, AK
KL7CC	Wiley, Jim	Anchorage, AK	KL7JE	Erickson, Joan	Anchorage, AK
KL7CCI	Cadman, Ted	Anchorage, AK	KL7JES	Preston, Karin	Anchorage, AK
KL7CDG	Tvrdy, Jimmie	Anchorage, AK	KL7JFJ	Ward, William	Anchorage, AK
KL7CH	Hammer, Clarence	Anchorage, AK	KL7JGN	Fuller, Lloyd	Anchorage, AK
KL7CMQ	Coleman, Charles	Anchorage, AK	KL7JGU	Jennings, Jay	Seattle, WA
KL7CY	Lynn, Jr, John	Anchorage, AK	KL7JIG	Brasseur, Herbert	Mirror Lake, NH
KL7DC	Gehring, Steven	Eagle River, AK	KL7JIJ	Minton, James	Anchorage, AK
KL7DU	Tucker, Edwin	Cottonwood, AZ	KL7JIM	Wilcox, Stephen	Anchorage, AK
KL7DV	Strother, George	Wasilla, AK	KL7KB	Feaster, James	Anchorage, AK
KL7DZE	Naumann, Mike	Anchorage, AK	KL7KI	Thomas, Bill	Spring Creek, PA
KL7EB	Stevens, David	Anchorage, AK	KL7LA	Hanrath, Rosemary	Willow, AK
KL7EJ	Beaugard, P	Anchorage, AK	KL7LL	Orella, John	Wasilla, AK
KL7EL	Lynn, Edythe	Anchorage, AK	KL7LO	Epstein, David	Anchorage, AK
KL7EM	Scott, Russell	Canyon, TX	KL7MD	Heath, Jasper	Wasilla, AK
KL7ENP	Woolsey, Robert	Hansville, WA	KL7ML	Schroeder, Steve	Yuba City, CA
KL7EQX	Plumb, Earl	Anchorage, AK	KL7MQ	Curman, Joyce	Kennesaw, GA
KL7ERV	Christensen, Robert	Wasilla, AK	KL7NG	Menard, Bimji	Anchorage, AK
KL7EU	Ronne, Jr, Marshall	Seward, AK	KL7NK	Talbott, Joseph	Anchorage, AK
KL7EWR	Fowler, June	Anchorage, AK	KL7NR	Moody, Catherine	Eagle River, AK
KL7FD	Delp, Kenneth	Anchorage, AK	KL7OA	Preston, Charles	Anchorage, AK
KL7FE	Erickson, Fred	Anchorage, AK	KL7OK	Morris, Jr, Eugene	Anchorage, AK
KL7FHX	Dowding, Fielder	Anchorage, AK	KL7OR	Edge, Ellen	Anchorage, AK
KL7FK	Graham, Fred	Henderson, NV	KL7PC	Gunson, Robert	Eagle River, AK
KL7FS	Chase, Arthur	Stanwood, WA	KL7QS	Neeley, Martha	Copperas Cove, TX
KL7GBC	Walters, Jr, Benj	Anchorage, AK	KL7QY	Reynolds, Sherman	Anchorage, AK
KL7GGT	Gleason, D.B.	Cooper Landing, AK	KL7QZ	Bury, John	Anchorage, AK
KL7GN	Nightingale, Gordon	Anchorage, AK	KL7SA	Maney, Rodney	Anchorage, AK
KL7GNP	Bierman, John	Anchorage, AK	KL7SD	Larson, Kent	Ft Duchesne, UT
KL7GQ	Hansen, Roy	Valdez, AK	KL7SE	Kletka, Fred	Ocean Shores, WA
KL7GRT	Collison, Les	Easton, WA	KL7SH	Day, Richard	Anchorage, AK
KL7HAB	Lawrence, David	Anchorage, AK	KL7SK	Taylor, Art	Tenino, WA
KL7HD	Hadley, Mark	Anchorage, AK	KL7SV	Faultersack, Robert	Redmond, WA
KL7HFM	Wegmer, Fred	Fowlerton, TX	KL7TO	Giebel, Alfred	Anchorage, AK
KL7HFQ	Hansen, Roger	Big Lake, AK	KL7TQ	Kelliher, Mark	Eagle River, AK
KL7HH	Lane, Kenneth	Anchorage, AK	KL7TS	Sheffield, TJ	Anchorage, AK
KL7HHO	Groomer, Wayne	Wasilla, AK	KL7UQ	Soltis, Francis	Chugiak, AK
KL7HHR	Haynes, Al	Chickaloon, AK	KL7VB	Gilmore, Harry	Anchorage, AK
KL7HJD	Steves, Harold	Roseburg, OR	KL7VT	Belfield, Jean	Gresham, OR
KL7HJZ	Twiggs, John	Greenwood, SC	KL7WM	Stevens, Daniel	Kent, WA
KL7HKH	Shafer, Rik	Kent, WA	KL7XO	Estes, Steven	Fairbanks, AK
KL7HO	Steward, Arlene	Anchorage, AK	KL7XR	Richards, John	Anchorage, AK
KL7HOT	Weed, Roger	Duluth, GA	KL7YF	Marvin, Rick	Anchorage, AK
KL7HQJ	Farney, Harold	Spokane, WA	KL7YZ	Spencer, Robert	Anchorage, AK
KL7IAF	Tessier, Lorraine	Anchorage, AK	KL7ZJ	Morrison, Steven	Anchorage, AK
KL7IBZ	Laws, Claude	Olympia, WA	KL7ZO	Gamel, William	Anchorage, AK

KL7ZJ	Morrison, Steven	Anchorage, AK
KL7ZO	Gamel, William	Anchorage, AK
L7ZP	Gamel, Beth	Anchorage, AK
KL7ZV	Bender, James	Prescott, AZ
N2TSH	Cohen, Caren	Anchorage, AK
N7CFF	Monfore, Ray	Eagle River, AK
NF7T	Turner, Glen	Purcell, OK
NL7A	Jones, John	Anchorage, AK
NL7AC	Soltis, Debbie	Chugiak, AK
NL7AD	Rossini, Guy	Anchorage, AK
NL7AJ	Piendiadz, John	Harleyville, SC
NL7AV	Hilton, Sue	Eagle River, AK
NL7BE	Rexford, Fenton	Kaktovik, AK
NL7C	Moody, Jr, James	Anchorage, AK
NL7D	Michael , Tim	Anchorage, AK
NL7DK	Rookus, Harvey	Anchorage, AK
NL7DL	Marvin, Lillian	Anchorage, AK
NL7DM	Laws, Mary	Olympia, WA
NL7DN	Strait, Dennis	Anchorage, AK
NL7EA	Kelliher, Hannelore	Eagle River, AK
NL7FY	Searcy, Linda	Olympia, WA
NL7FZ	Head, Beth Daniel	Cary, NC
NL7GA	Kiester, Tom	Anchorage, AK
NL7HT	Sommer, Robert	Kodiak, AK
NL7K	Easterly, Lyle	Anchorage, AK
NL7KN	Hammer, Dianne	Anchorage, AK
NL7NC	Lawson, John	Anchorage, AK
NL7NN	Woods, Susan	Anchorage, AK
1L700	Johnson, Gerard	Anchorage, AK
NL7PJ	Jendryk, Paul	Anchorage, AK
NL7RY	Sheley, Roger	Anchorage, AK
NL7SK	Comfort, Timothy	Palmer, AK
NL7SP	Eggleston, Ken	Bethel, AK
NL7TZ	Rutigliano, Thomas	Wasilla, AK
NL7UQ	Baker, Jr, Robert	Columbia, MD
NL7UY	McLaughlin, Cathleen	Palmer, AK
NL7VP	Maher, Edward	Anchorage, AK
NL7VR	Carraway, Simon	Anchorage, AK
NL7WV	Erickson, Jana	Anchorage, AK
NL7WW	Murray, John	Eagle River, AK
W1JM	Missal, William	Anchorage, AK
W4IGM	Shull Sr, John	Anchorage, AK
W4VFE	Weatherly, Marv	Alameda, CA
W5AHO	Neeley, Walter	Copperas Cove, TX
W5AN	Rosenthal, Herbert	Albuquerque, NM
W7ICI	Lupo, Bob	Eagle River, AK
WAIACN	Carty, John	Anchorage, AK
WA7RF	Fisher, Robert	Ford, WA
WA7USX	McLaughlin, Michael	Palmer, AK
WA9C	Vogel, Dave	Evansville, IN
WL7AFN	Harris, Bill	Salem, OR

WL7AME	Ganopole, Jerry	Anchorage, AK
WL7AQ	Stevens, Dennis	Anchorage, AK
WL7AXI	Faultersack, Beverly	Redmond, WA
WL7BD	OBarr, Dan	Wasilla, AK
WL7BF	Spatzek, Paul	Anchorage, AK
WL7BYL	Steward, Kenneth	Anchorage, AK
WL7CDJ	Filley, David	Anchorage, AK
WL7CES	Leghorn, Timothy	Anchorage, AK
WL7CJM	McCormick, Scott	Fallbrook, CA
WL7CKB	Borer, Michael	Anchorage, AK
WL7CL	OBarr, Jr, Dan	Wasilla, AK
WL7CLX	Horvath, Daniel	Anchorage, AK
WL7CMZ	Kelly, Kevin	Anchorage, AK
WL7COD	Hanshew, Adam	Wasilla, AK
WL7CPG	OConnor, Richard	Anchorage, AK
WL7CPX	Kotsch, Richard	Indian, AK
WL7CIA WL7CSR	Clark, Harold (Keith)	Anchorage, AK
WL7C3R WL7D	Bowlin, Frank	Aptos, CA
WL7EN	Kelly Jr, Robert	Anchorage, AK
WL7GW	Gilbert, Bobbie	Anchorage, AK
WL7IM	Worchester, Leonard	Anchorage, AK
WL7IN	OBarr, Gretchen	Wasilla, AK
WL7IN WL7J	Warner, Wilmot	Margate, FL
WL7JA		
	Wilke, Patrick	Anchorage, AK Anchorage, AK
WL7JM	Paerels, Eric	The same of the sa
WL7KL WL7KS	Flygenring, Gunnar	Anchorage, AK
	Saunders, Karen	Anchorage, AK
WL7KZ	Carraway, Connie	Anchorage, AK
WL7LA	Carraway, Al	Anchorage, AK
WL7MC	Carraway, William	Anchorage, AK
WL7NH	Nightingale, Patricia	Anchorage, AK
WL7RY	Thorsness, Gerianne	Anchorage, AK
WL7S	Sockolosky, Tom	Martinsville, NJ
WL7TY	Preston, Terry	Fairbanks, AK
WL7WH	Prescott, Robert	Anchorage, AK
WL7YR	McCormick, Bruce	Anchorage, AK
WL7ZT	OConnor, Kristina	Anchorage, AK
WL7ZU	OConnor , Frank	Anchorage, AK
WX7P	Morgan, Wilse	Camp Verde, AZ
	Bouden, Jeff	Anchorage, AK
	Cadman, Belva	Anchorage, AK
	Clough, John	Anchorage, AK
	Cope, Claudia	Anchorage, AK
	Hauser, Sandy	Wasilla, AK
	Johnson, Richard	Anchorage, AK
	Stewart, Robert	Anchorage, AK
	Tvrdy, Elizabeth	Anchorage, AK

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Here is wishing you all a GREAT Christmas and Happy New Year from the Editor and Staff of your Newsletter. ENJOY