



THE AMERICAN RADIO RELAY LEAGUE, INC.

INTERNATIONAL SECRETARIAT OF THE INTERNATIONAL AMATEUR RADIO UNION

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OFFICE OF THE SECRETARY

**ORIGINAL
FILE**

Mel Bowns, KL7GG
HC 83
Box 1599
Eagle River, AK 99577

Dear Mel:

Thank you for sending me the copy of your Iditarod communications file. Upon reviewing it, and especially the FCC notices and transcripts, I can certainly sympathize with your and the others' feelings in the matter.

Prompted in part by unfortunate experiences such as the one you have endured, the League has sought clarification from the FCC on the regulatory issues involving public event communications. In discussions with ARRL last year, high-level FCC officials admitted that strict interpretations of the current rules were making it difficult or impossible for amateurs to conduct traditional public service activities. This opened the door to the League's sending a letter to the Commission requesting the clarification. The FCC subsequently assigned the request a rulemaking number, and we are now awaiting the Commission's release of a Notice of Proposed Rulemaking on the matter. (Enclosed please find further details of the League's position). Hopefully, as a result of this rulemaking process, problems such as those you have experienced will be set aside in future races.

I am sharing your correspondence and file with our Washington Area Coordinator Perry Williams for his use in buttressing our position in the Commission's Washington offices. Let me take this opportunity to commend your communications group for what obviously is a titanic effort for the public benefit in the Iditarod race. I trust that your good work will continue unfettered for years to come.

73,

Sincerely,

Richard Palm, K1CE
Field Services Manager

HC 83
Box 1599
East River AK 99577

April 30, 1992

Dear Mary,

I am writing this letter to express my concern with regard to communications during the Iditarod Trail Sled Dog Race. I have been involved with the race for the past several years. Being an Amateur Radio Operator, communications has been my interest. During the last two years, the Amateur Community has experienced a greater amount of Federal Communications Commission monitoring of radio transmissions during the race.

Amateur Radio has been the lifeline of the race since its inception in 1973. At that time, traffic was handled exclusively by Amateurs. Whether it was getting more straw for the dogs, making sure a plane made it safely to its destination, or to check to make sure a musher made it to the next checkpoint, Amateurs handled the traffic.

Now, according to the local field office of the F.C.C. it is not legal to have Amateurs handle the race traffic. All Amateurs nationally must operate under Part 97 of the Commission Rules. These rules have been in existence for longer than the Iditarod. Yet it has only been during the last few years that the F.C.C. has said that the use of Amateur Radio in this manner is not acceptable.

Two examples of F.C.C. concerns follow:

1. Rule 97.110 Business communications prohibited.
The local office considers any type of logistics traffic (i.e. checking on a pilot, race official, or veterinarian) to be business traffic.
2. Rule 97.112 No remuneration for use of station.
The local office has said that the trail food at the checkpoints provided by Iditarod and the comp. airline tickets to get Amateurs to their checkpoints is a form of reimbursement for communications by the Amateurs.

There are other examples but I will not go into them at this time. I think it has been the intention of Amateurs that have worked on the trail to provide communications with checkpoints, race officials, and race headquarters for the purposes of safety, health, and welfare of all pilots, race officials, mushers and their dogs.

It has become quite clear that the local F.C.C. office thinks that the Iditarod has become a BIG-DOLLAR commercial operation. They seem to believe that Amateurs are being used to side-step the responsibility of buying, setting up, and maintaining a very expensive (but not always reliable) commercial radio system which would be in operation only for the duration of the race (approximately three weeks).

The fact is that Amateurs are people who enjoy providing service to others (i.e. Ham Radio people were the first to be in contact with the "United States" after the Good Friday Earthquake in 1964). They freely give their time, equipment, and expertise to ensure that the race is completed in as safe a manner as possible. It has happened more than once, that an Amateur has helped with communications to resolve a problem that could have been life threatening.

This year the local F.C.C. office gave the Iditarod Amateurs strict guidelines to follow in order to avoid the issuance of any further infraction notices. As a result, the Amateurs on the trail were very cautious and limited their

communications as much as possible. This limited format was most frustrating because it did not allow the Amateurs the opportunity to monitor the movement of pilots, race officials or the other race personnel during the race.

You will find attached an article from the local paper telling about a musher, Bob Ernisse. It is my opinion that if Amateur communication could have been involved, it would have been to Mr. Ernisse's best interests.

You will also find attached a copy of the 1991 and 1992 John Beargrease Sled Dog Marathon Communications Plan. I had the pleasure of being at the Beargrease Race in 1991. I worked with fellow Amateurs in communications. They operated their communications system, which was totally Amateur equipment, the same as Iditarod has done for years. The Beargrease Race is run along the North Shore of Lake Superior. It is two hundred and fifty miles up and back on a groomed trail. You can drive a car to any of the checkpoints because a highway parallels the entire race course. There are telephones, food, electricity, indoor plumbing and all the comforts of home at each checkpoint. By comparison, it does not expose pilots (no planes are used in the Beargrease), race officials, other race personnel, or mushers to the rigors experienced during the Iditarod. It is common knowledge that there are many checkpoints on the Iditarod that are separated by fifty to over one hundred miles of nothing but wilderness. All Iditarod personnel have to be under the watchful eye of a dependable, short-term communications system to ensure their safety and well being.

The Beargrease communications plan for 1991 was submitted to the Minneapolis-St. Paul F.C.C. office and it was approved. This year the 1992 plan was submitted to the same office. It was then forwarded to the F.C.C. offices in Washington D.C.. It was also approved.

As previously stated, all Amateurs are regulated by F.C.C. Rules Part 97. Yet the Minnesota plan was approved as submitted while the Iditarod worked under very strict instructions from our local F.C.C. office.

Further included here are copies of some of the notices that were sent to Amateurs from the F.C.C. last year for "unsatisfactory" or "marginal conditions" while they were being monitored at the local Anchorage office.

As I have mentioned before, there are a few checkpoints along the Iditarod that are in the wilderness with no conveniences. Amateur Radio has been the only way to obtain routine assistance necessary for maintaining health and welfare of mushers, dogs, and race personnel.

It is my opinion, that the F.C.C. in Washington is not aware of the number of people involved, the trail conditions (terrain), weather, or the absence of streetlights, sidewalks, and other such amenities along the trail.

It is my sincere hope that the F.C.C., be it local or in Washington D.C., re-evaluate the unique and harsh conditions under which the Iditarod operates and allow Alaskan Amateurs the pleasure of continuing to provide their services under the same conditions as do the Amateurs who work the John Beargrease Sled Dog Marathon.

Sincerely

Mel
Mel Bowns KL7GG
Communications Director
Iditarod Trail Committee

P.S. It was nice seeing you at Dayton and I hope you can do something for us.

We Alaskans

THE ANCHORAGE DAILY NEWS MAGAZINE

APRIL 12, 1992

WHEN
THE
IDITAROD
GETS
DEADLY



This Week

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Iditarod Trail.
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JIM JAGER / Anchorage Daily News

Bob Hickel begins this year's Iditarod.

DEATH WAITS ON THE IDIT-
AROD: What's the margin
between life and death in a
hellish storm on the Iditarod Trail?
Not much, as rookie musher Bob
Ernisse of Anchorage found out this
year. Several mushers were stopped
cold by a blizzard in the infamous
Topkok-to-Solomon blowhole.
Ernisse barely survived. By Doug
O'Harra. Page 6.

COVER: A musher huddles in his sled on the dangerous final stretch of the Iditarod. Daily News file photo.

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April 12, 1992

Vol. 14, No. 15

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Free-lance articles for We Alaskans may be sent on speculation to the magazine editor at the Anchorage Daily News, P.O. Box 149001, Anchorage 99514-9001. Topics should focus on Alaska environments and lifestyles. Payment upon publication.

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Then there are the holidays. In a town like Barrow, people make extra efforts to celebrate the holidays, with all kinds of warm wishes and delicious food. During the Christmas holidays, almost every office in town has a big spread for employees and visitors. Wonderful smells, hearty handshakes, and "By the way, take some home for later."

floe," she suggested.

Thanks, Leanne.

Still, time is running out if I'm going to lose 10 or 15 pounds by summer softball season. It sure would be nice to be able to bend over for a ground ball, or make it safely to first base on a ball hit to the outfield.

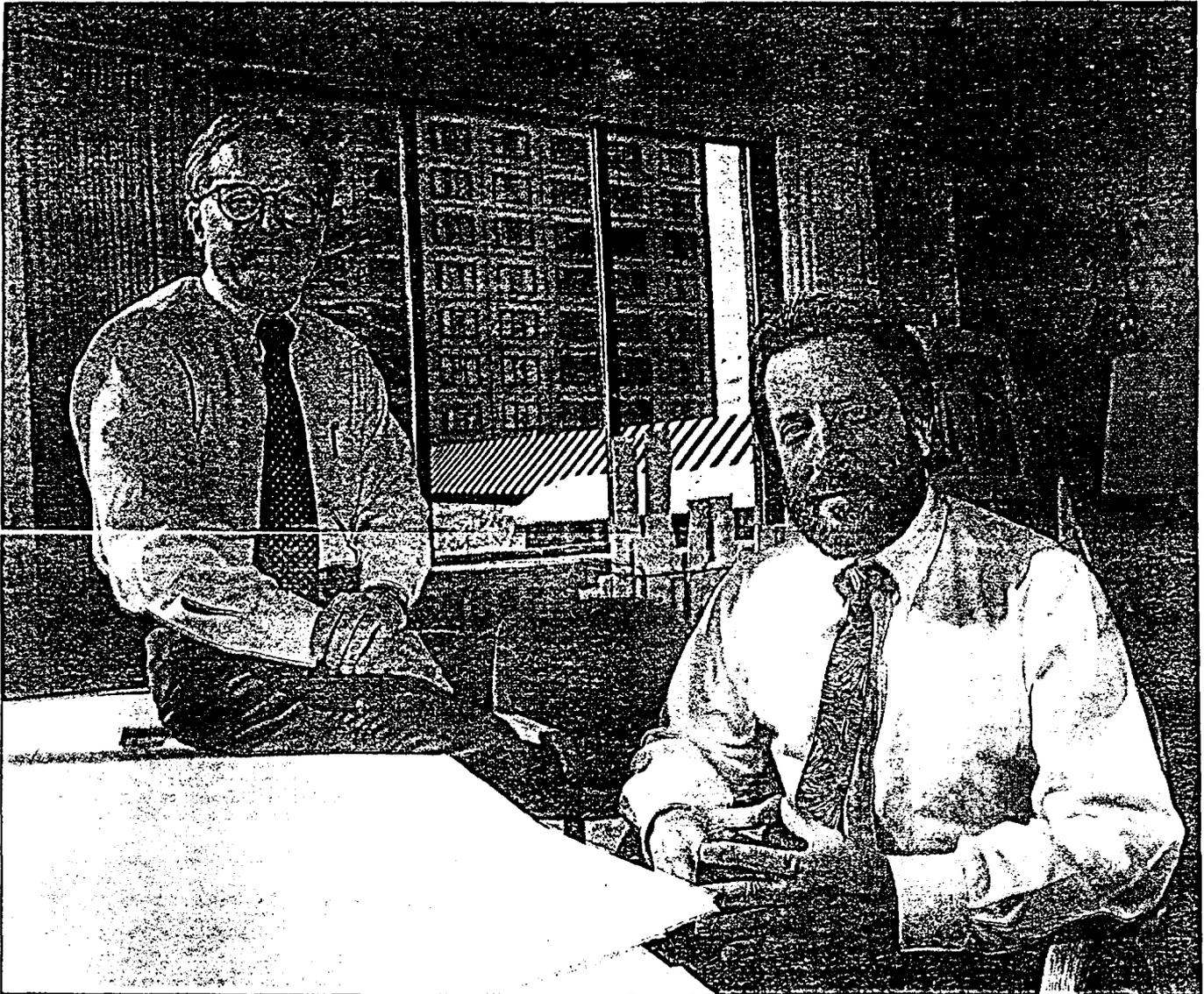
But a full season of Chicago Cubs baseball is coming up on cable TV as well. And when

IDITAROD FEARS

Brush With Death

‘I’ve been through (the blowhole) and I can tell you it’s quite bad. It’s like a wall. . . . The people in White Mountain and the people in Solomon, they know. When it gets to blowing like that, they stay home.’

— White Mountain resident Howard Lincoln



BILL ROTH / Anchorage Daily News

Off the trail, out of the hospital, Bob Hickel, left, and Bob Ernisse are back working together at the Hotel Captain Cook.

DEATH WAITS ON THE IDITAROD TRAIL

By DOUG O'HARRA

All night, the ground blizzard had thundered and moaned. The wind — gusting to at least 70 mph — froze exposed skin, swallowed landmarks, drove huskies to burrow into drifts. It scoured the flats some 30 miles east of Nome with cold brutality that would forgive no mistakes, pinning down the back-of-the-pack mushers struggling toward the finish line of the Iditarod Trail Sled Dog Race.

After traveling 14 days and 1,100 miles, these mushers had been swallowed by the race's final obstacle: the Topkok-to-Solomon blowhole, where a torrent can sweep out of the mountains east of Nome with little warning.

Meteorologists say the coastal phenomenon — one of the race's most extraordinary hazards — can't be predicted or fully explained. Locals say it can kill the unprepared. And Iditarod mushers say you've just got to cross it. If you can.

But as dawn rose on March 15, five Iditarod racers had not been able to make it through. Three of the mushers — Bob Ernisse, Bob Hickel and Debbie Corral — had driven into the blizzard about 3 a.m., only five hours out of White Mountain on the final leg of the Anchorage-to-Nome race. Unable to see the trail, unable to return to a shelter cabin, at 6 a.m. they had finally crawled into their sleds to await daylight.

Continued on next page

**Several mushers nearing
Nome are trapped in the
night by one of the most
vicious — and mysterious —
storm systems in Alaska.
One musher, a race rookie,
barely escapes with his life**

IDITAROD FEARS

Brush With Death

Continued from previous page

Four hours passed.

And then ... something went wrong.

Cocooned inside his sled, Hickel — the governor's son — heard a sound that jerked him to the edge of waking. A voice? Outside the wind hissed and roared like the rapids of a river. For a moment, Hickel thought he was dreaming. Exhausted after the all-night ordeal, he plunged back into sleep. Then he heard it again: *Bob! ... BOB!*

Hickel abruptly stuck his head out of his sled bag and shouted, "I'LL BE RIGHT THERE!"

For a moment, Hickel hunkered down inside the bag. His gloves were damp, so he changed them. He pulled on his beaver hat and zipped up his multiple layers of high-tech gear. Then he opened the sled bag and stepped out into wind.

It was full day, about 10 a.m., though whipping snow still swallowed any sign of sky or horizon. Through the blizzard, Hickel could see Corral's sled some 70 feet off. In the other direction, a little closer, he could see Ernisse's.

He trudged first to Corral's sled. "For some reason," he said later, "I thought she had called me." But her sled was buttoned down and secure. The nurse from Eagle River on her first Iditarod was inside, still sound asleep.

So Hickel turned and trudged toward Ernisse, who had gone to bed very cold the night before. Working together, the three mushers had gotten Ernisse into his sled only with difficulty and had not been able to get the sled or sleeping bag completely closed. Yet Ernisse had started to warm up, and Hickel had gone to bed believing him safe for the night.

What Hickel found that morning shocked him.

Ernisse lay fully exposed to the wind. Both his sled cover and sleeping bag had blown open. His bare feet, whitened and freezing, lay in snow at the bottom of his sleeping bag. His polypropylene long underwear was matted with ice. Frost covered his beard and face. Folded under his armpits, his hands were ruined with frostbite. Ice packed his nostrils, and his left eye was swollen shut. A frozen patch of skin on his cheek had gone white.

"It was like looking at a man encased in a glacier," Hickel said later. "He was in tough shape."

Hickel had known Ernisse for years. A popular bartender and bar manager in the Hotel Captain Cook (the downtown Anchorage hotel owned by the Hickel family), Ernisse had gotten Hickel interested in mushing years earlier, and helped him prepare for his first Iditarod in 1990. Now for Ernisse's rookie race, the two

men and Bill Bass had largely traveled together.

But the blowhole had transformed a strenuous adventure among friends into something far different. Ernisse, who made a series of small mistakes the night before — getting sweaty, chilling his hands, taking off his suit — was now in danger of dying.

Stooping next to the sled, Hickel tried to rouse Ernisse. He stirred. Hickel had to put his head close to Ernisse's mouth. In a weak, halting voice, he told Hickel he couldn't stand, couldn't move, couldn't get the snow off his face.

Hickel found Ernisse's beaver hat and pulled it over his head. He dug through the open sled and the snow and found socks, and pulled them over Ernisse's freezing feet. He repeatedly gouged the matted frost from Ernisse's face. As the frozen musher seemed to fade in and out of consciousness, Hickel shook him, shouted into his face.

"You have to get up!" he yelled at him.

Scooting underneath Ernisse inside the sled bag, Hickel tried to dress him in the full-length arctic suit they had removed the night before. But the suit was frozen.

"YOU'VE GOT TO GET MAD!" he told him. "Get pissed. We've got to get your clothes back on. Get mad." But Ernisse barely responded.

Frustrated, Hickel batted at Ernisse's face, roughly knocking off the ice. He gouged the frost from his eyes.

Roused at last, Ernisse swore loudly at Hickel. "You're tearing my eyes out!"

"That's great," Hickel responded, relieved. "You're going to be all right. You're not going to die out here."

Slowly, with Hickel's help, Ernisse struggled to his feet. With the wind flapping clothing and bibs and gear, with short breaks to huddle for warmth, the two men painstakingly began to dress Ernisse in his arctic gear as the wind howled around them.

At that moment, six other people were caught in the same weather. Only yards away, Debbie Corral remained in her sled. A mile closer to Nome, two other mushers — Mellen Shea and Bill Bass — were holed up in separate locations. A few miles back up the trail, Nome whalebone carver and recreational musher Robin Thomas and two companions had left a shelter cabin where they had spent the night. They were moving slowly through white toward Ernisse and Hickel.

Surrounding them all was a blizzard that poured unrelentingly

from the bald mountains overlooking frozen Norton Sound. Bounded by the Topkok Hills on the east and the flats outside Safety on the west, the region has a notorious reputation that stretches back to the gold rush. It's a place that has killed — and is expected to kill again.

"I've been through it and I can tell you it's quite bad," says Howard Lincoln, a lifelong resident of White Mountain. "It's like a wall. ... The people in White Mountain and the people in Solomon, they know. When it gets to blowing like that, they stay home."

Yet those racing in the Iditarod do just the opposite. Rather than wait out horrendous weather — as any gold-rush era musher would have done — most racers push forward into conditions that could prove deadly if something goes wrong. And that margin of error can be very slight.

In a larger sense, it's the choice made over and over by those who participate in Alaska's other high-adventure sports: traversing

the Bush, running rivers, climbing mountains. There's always the danger of capsizing in 38-degree water, of an avalanche thundering down, of plummeting into a crevasse.

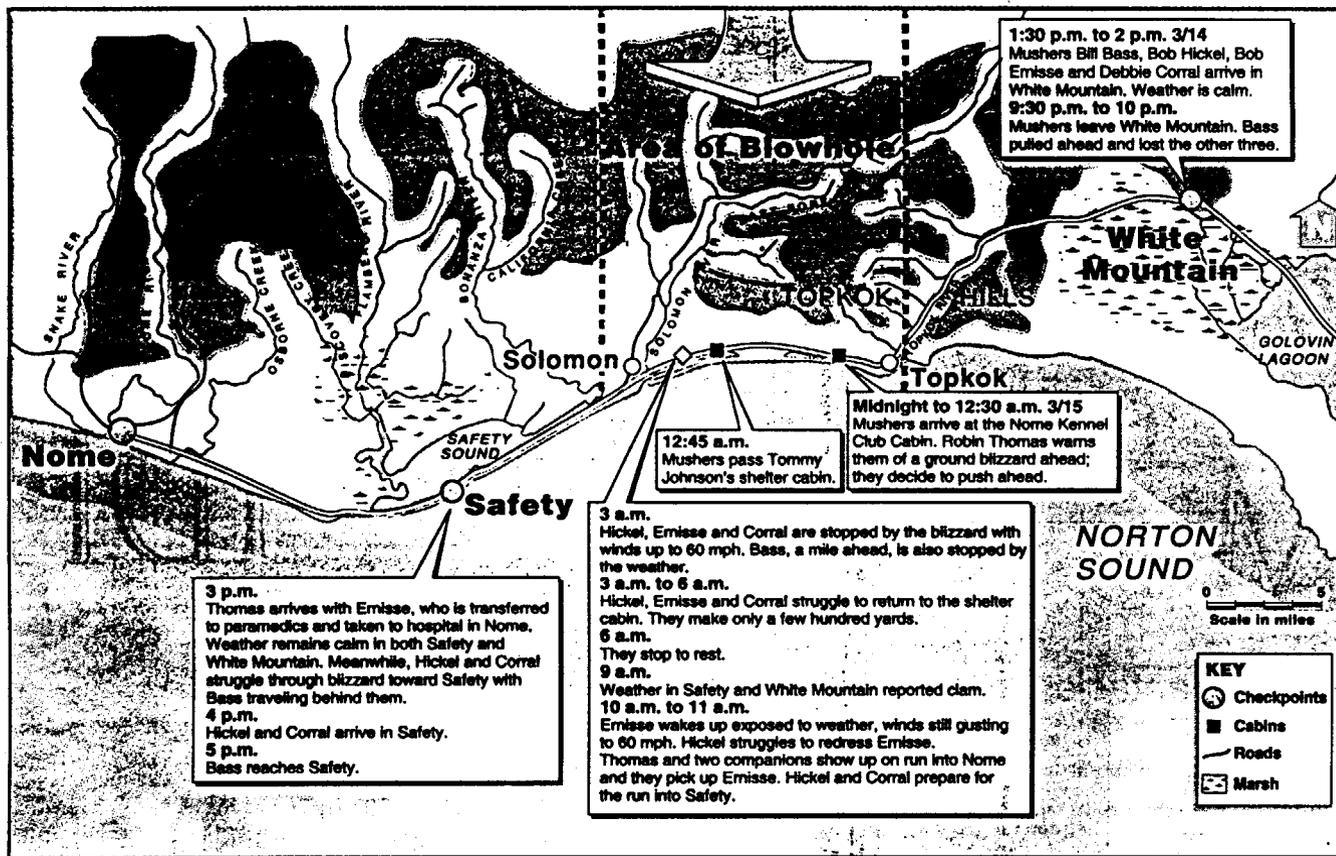
But the Iditarod? Is the race to Nome supposed to involve the calculated risk of death?

In most recent races, the question hasn't even come up. The Iditarods of the late 1980s were often marked by sunny weather and swift trails. Describing those races as dances with death would have sounded like tour-group hype, the sort of mock-serious Alaskans found in Robert Service odes to Yukon cold.

But the danger has always been real, according to experienced mushers.

"The Iditarod for many years has been a cakewalk, but anybody who signs up for it had better realize they can experience real Alaska weather any step of the way," says 1992 champion Martin Buser, who shattered race records

Continued on Page 12



1:30 p.m. to 2 p.m. 3/14
 Musher Bill Bass, Bob Hickel, Bob Emisse and Debbie Corral arrive in White Mountain. Weather is calm.
 9:30 p.m. to 10 p.m.
 Musher leave White Mountain. Bass pulled ahead and lost the other three.

Midnight to 12:30 a.m. 3/15
 Musher arrive at the Nome Kennel Club Cabin. Robin Thomas warns them of a ground blizzard ahead; they decide to push ahead.

12:45 a.m.
 Musher pass Tommy Johnson's shelter cabin.

3 a.m.
 Hickel, Emisse and Corral are stopped by the blizzard with winds up to 60 mph. Bass, a mile ahead, is also stopped by the weather.
 3 a.m. to 6 a.m.
 Hickel, Emisse and Corral struggle to return to the shelter cabin. They make only a few hundred yards.
 6 a.m.
 They stop to rest.
 9 a.m.
 Weather in Safety and White Mountain reported clam.
 10 a.m. to 11 a.m.
 Emisse wakes up exposed to weather, winds still gusting to 60 mph. Hickel struggles to redress Emisse.
 Thomas and two companions show up on run into Nome and they pick up Emisse. Hickel and Corral prepare for the run into Safety.

3 p.m.
 Thomas arrives with Emisse, who is transferred to paramedics and taken to hospital in Nome. Weather remains calm in both Safety and White Mountain. Meanwhile, Hickel and Corral struggle through blizzard toward Safety with Bass traveling behind them.
 4 p.m.
 Hickel and Corral arrive in Safety.
 5 p.m.
 Bass reaches Safety.

KEY

- Checkpoints
- Cabins
- Roads
- ▭ Marsh

IDITAROD FEARS

Brush With Death

Continued from Page 8

by posting the first 10-day finish.

"In fact, I think we have been very lucky not to have lost anybody by now. Think of the people in the villages. It's not unheard of that those people perish, and those are not rookies. Those people know the overflow, they know the blowholes. Those are local people, and yet they still die.

"It's only a matter of time before one of the Iditarod mushers has the same fate."

Buser should know. He took second place in 1991, right behind five-time winner Rick Swenson. Both men trudged through a massive ground blizzard that stretched from White Mountain to Safety, a distance of 50-odd miles. That weather was so severe that Susan Butcher, Joe Runyan and Tim Osmar — three of the most experienced mushers in the world — decided they were risking their lives and turned back to White Mountain.

"I've seen it that bad on Mount Logan before," a windburned Runyan said at the time. "But I was in a tent — listening to the wind."

Experienced mushers say the entire coastal stretch of the race — 229 miles from Unalakleet to Nome — is rife with potentially deadly weather.

"I think if we ever lose a musher, it will be between Shaktoolik and Nome," says Iditarod founder Joe Redington Sr. Others agree.

The wind can howl out of Old Woman Pass down into Unalakleet. It can transform the trail through Shaktoolik into a survival trip. In 1982, on the drive from Shaktoolik across Norton Bay to Koyuk, Shismaref musher Herbie Nayokpuk nearly died. Yet the popular musher, an Inupiat ivory carver who had lived his entire life on the Chukchi Sea coast, would surely have qualified as a master of survival.

In 1985, Libby Riddles pushed into similar conditions, spent the night in her sled, and went on to become the first woman to win the race. It gave her a lead she never lost. But some back-of-the-pack mushers who followed nearly died, at least one losing his team in the blizzard.

So far, in 20 races, no one has died on the Iditarod. Every year, a lot of effort goes into making sure no one does. Race rules require survival gear and experience, and race veterans customarily work with the less-experienced. But top mushers also say the danger that someone will die adds to the race's mystique.

"That's an element of the excitement of going on the trail," says musher Lavon Barve. "I

mean, why do people climb rock faces with little ropes? I don't do that, but I assume part of the attraction is that some of them don't make it."

Mushers like Swenson and Riddles have even used deadly weather as a springboard to victory. Gambling on ground blizzards has become part of race lore. "It's like passing on the outside lane in a race car," one veteran musher said during the 1991 race. "You might get around, or you might go into the wall."

Among all of these coastal hazards, the Topkok-to-Solomon blowhole — a venturi-like wind phenomenon — may be most dangerous of all. For one thing, it can occur anywhere between White Mountain and Safety — a 50-mile stretch of trail — arising without warning, pouring down on the unprepared like an avalanche of wind.

It's difficult to overstate the brutality of what it's like to traverse the Topkok-to-Solomon blowhole. People caught in it remember the experience all their lives. At its worst, it's less a snowstorm than a blast, as though a glacier had just exploded upwind and was scouring you with shrapnel.

"It's like a river coming down out of the north," is how Redington describes it. "In the 18 races I've run, probably over half of them we've had that storm. It can be real bad."

"Imagine the worst thing you can, and it's 10 times worse than that," says musher Laird Barron, who froze his foot there during the 1991 race and helped Ernisse train for this year's. "You couldn't see. In the height of the storm, you couldn't see 10 feet. It was unreal."

What makes this hazard even more remarkable is that no one — not locals, not scientists — can thoroughly explain it. Stan Keefe, meteorologist-in-charge at Nome, and Rick Thoman, a meteorologist who spent about three years in Nome and has studied the phenomenon, both say they understand in general how it works, but cannot predict when or where it will hit.

It seems to require a mass of air moving seaward out of the Seward Peninsula's highlands. It doesn't have to be swift, or even particularly dramatic. It just has to move from a northern direction toward the coast. And wham... sometimes you've got a ground blizzard.

"Once it goes into the valleys that are oriented in the direction it wants to go anyway, it just accelerates, like a fire hose effect," Thoman says. "Why it gets magnified to 40 or 50 or 60 mph when the prevailing wind is 15, now that's an interesting question, and nobody has the

answer to that."

"It's real confusing, although obviously the terrain is doing it," Keefe adds.

To make it even more complicated, the blizzard can stretch all the way from White Mountain to Safety, as in 1991, or it can be as narrow as a few hundred yards, centered on a single creek drainage.

"You can be sitting in your tank top on either side, and it's blowing in the middle" is how Buser puts it.

"It's all incredibly localized," Thoman adds. "In this (recent) case, it wouldn't appear to be more than five or 10 miles wide."

When Ernisse, Hickel, Corral and Bass left White Mountain Saturday night, the weather was calm in White Mountain and Nome. By next morning, Ernisse was fighting to survive in winds gusting beyond 50 mph, 10-degree temperatures, wind chill at least 40 below. But only a few miles to the east and west, it remained calm. At 9 a.m. a 5-mph breeze fluttered in White Mountain. About the same time, the northeast winds at Safety were a mere 10 mph.

That makes predicting the hazard virtually impossible, according to Thoman and Keefe, who are writing an official report on the phenomenon.

"The weather was perfectly fine everywhere that we knew of," Thoman says. "And yet here is a life-and-death situation — and had it been 20 degrees colder, it could have been a death situation."

To adequately predict the weather between White Mountain and Nome, Thoman says, "We need a scale that's unobtainable. We need observations every few miles in that area. They don't even have that in Kansas."

Bob Ernisse was like many amateur mushers: His ambition to run the Iditarod began as a dream and grew into an obsession.

"I think the main thing was the challenge of running the race and seeing the country, seeing part of Alaska that most people who live here never see or will never see," he says now. "I really, really wanted to make it to Nome."

Born in urban California in 1948, Ernisse managed a bar in Los Angeles until he came to Alaska in 1975 on a fishing trip and remained. He landed a job as a bartender at the Hotel Captain Cook, and for the past seven years he's been manager of the hotel's four bars.

Ernisse began following the Iditarod back in the 1970s, and over the years he got Bob Hickel interested in trying the race. Beginning in the winter of 1991, Ernisse began training with Laird

Barron, son of longtime Iditarod musher John Barron, out in the Susitna Valley. Every Thursday he'd drive out to the dog lot and stay until Sunday. Over the past two winters, Ernisse spent upward of \$30,000 on leasing dogs and training for the race.

Barron, who traveled weekend after weekend with Ernisse, teaching him camping skills, dog care and mushing techniques, says he was impressed with the older man's tenacity.

"He worked pretty hard," Barron says. "It was really hard for him to juggle his job and come out here three or four days a week. But he did it for two winters... He was psyched up for this race big time."

So with a team of 17 dogs leased from Barron, a sled borrowed from Dewey Halverson and the advice of mushers like Martin Buser in his head, Ernisse drove out on the 20th Iditarod with a sense that he'd covered every base. He had a Northern Outfitters foam arctic suit, plenty of gear, food, training and ambition.

The story of the first 14 days of his race is a quick one. Ernisse traveled with his friends Hickel and Bass through the Alaska Range and into the Interior's cold snap without a hitch. "It was beautiful," he says now, everything he had expected the race to be.

The three reached White Mountain on Saturday, March 14, in early afternoon. After an eight-hour layover, the three expected to leave for Nome and get there by morning. They were elated, but it wasn't about competition — they held the 56th through 58th places in the standings. It was simply joy that they would finish, making the first official banquet for Iditarod finishers, scheduled for Sunday night.

"When we were in White Mountain, we were pretty pumped up that we were only 77 miles from the finish line," Ernisse says. "I was excited, man. I was going to fulfill my dream within 70 miles. There were less than 400 official finishers for the Iditarod in the world. I felt like I was going to become one of that elite group."

They ate cheeseburgers at the lodge, rested and fed dogs. Just before 10 p.m., they left for Nome. Musher Debbie Corral accompanied them. Ernisse had 14 dogs, and they seemed fit.

The early portion of the run was cold and beautiful. Bass, with a faster team, slowly pulled ahead. But Hickel, Ernisse and Corral were content to run together toward the Topkok Hills and the last stretch of coast to Nome.

Unknown to them, the ground

IDITAROD FEARS

Brush With Death

blizzard was already at work on the other side of the Topkok Hills. Two rookie mushers, Steve Christon and Mellen Shea, who had left for Nome some seven hours earlier, were already caught in the winds. Christon was able to push through; Shea was not and was pinned down for the night.

By midnight, the three had crossed a low pass, driven down the Topkok River, over the Topkok Hills and reached a shelter cabin on the coast. Both Hickel and Ernisse were damp with sweat from running in the hills, but Corral was still dry. Hickel unzipped his parka and dried out. Ernisse, still warm, remained wet. At the time, he didn't think much about being damp. After all, he'd be in Nome in a few hours. Yet the wind, absent only a few miles back, had picked up, blowing maybe 30 mph.

Hickel drove on past the shelter cabin, but Ernisse and Corral pulled up when a man stepped out into the wind. It was Robin Thomas. He told Ernisse that the radio was reporting a ground blizzard ahead. "They're missing four mushers, three guys and a girl," Thomas told him.

At that moment, Ernisse and Corral thanked him and pushed on. A few miles further, when Hickel had stopped to snack his dogs, the three conversed. Obviously, they thought, the four missing mushers were themselves and Bass. It seemed funny to them.

"We just laughed," Corral said later. "How could we be overdue when we had just left?"

The three pushed on. The wind remained strong, but still it was possible to keep moving. The trail markers were visible in the headlamps, and Ernisse felt fine. They passed a second shelter cabin, locally called Tommy Johnson's Cabin, built on the spit across a lagoon from Pine Creek — about halfway between Topkok and Solomon in the heart of the blowhole.

For something like 15 minutes, the three pushed on. With every yard, the wind grew in strength, the snow load thickened. Suddenly visibility shut down to less than 100 yards.

They stopped. Hickel's dogs began to burrow into the snow. "The wind increased in velocity 75 percent, and I'd say it was blowing at least 70 mph," Hickel says. "It was like a holocaust."

Corral, in the rear, would lose sight of Hickel in the lead and could barely make out Ernisse in the middle. "It got to the point where it was knocking me over — I could hardly stand up," she says. "My own eyelashes were starting to freeze up."

Ernisse remembered what he'd been told at the rookie meeting:

"Press on through it because it would end. It's a wind tunnel." But the blizzard surrounded him so thoroughly, swallowing all sign of the trail, that moving forward seemed ludicrous.

"You could feel the stinging of snow on your face, the crystal stinging."

Huddling with their backs to the wind, the three decided they would turn around and head back to the last shelter cabin, a 15-minute mush. But from the start, the trip became a hellish battle with weather, dogs and lines.

For three hours, from about 3 a.m. to 6 a.m. in the swirling blackness of the blizzard, they struggled to get their teams moving. And in that time, Hickel estimated later, they moved only a few hundred yards. Sometimes the blizzard thickened to the point where the headlamps would seem to disappear.

For Ernisse, it was here that the cold took hold. It didn't take much. The unrelenting blizzard forgave nothing, and Ernisse began to descend into hypothermia.

Kneeling over and over, struggling with tugline snaps, Ernisse took off his beaver mitts and tried to work with green cotton work gloves. The sweat that had drenched him earlier began to chill. By degrees, as he got colder and colder, his hands stiffer, his breathing labored, he came to the realization that he was in danger.

He slipped off the gloves and examined his hands: the skin was white. Frostbite.

They decided they would camp. Hickel found a trail marker, and they lined out the dogs. He thought they would be in good shape for the morning. Corral went off to her sled and crawled in. Although apprehensive about the wind, she says, she was warm. "I knew (Ernisse) was starting to get cold, but I guess he figured as soon as he got into his sleeping bag he'd get warm. I didn't think it would turn out the way it did."

But 150 feet away, out of sight in the blizzard, Ernisse and Hickel were struggling to get Ernisse to bed in the sled. Because his suit was wet, they decided he should take it off. Then the two men could not get the frozen zippers on the sleeping bag and sled cover to close. Finally Hickel folded it up as well as he could, tucking in Ernisse's suit around him. It appeared to him that his friend was secure for the night.

Inside Ernisse began to warm up. "I was moving my hands from my groin to my armpits," he said. "They started to ache, but I felt like I was warming up. I felt that the danger I had been in was over with." And, with that, he drifted into an uneasy sleep.

But the blowhole worked on

the unzipped sled bag just as it had worked on Ernisse's damp suit and hands. Over the course of the next four hours, it gradually opened the bag a slit, and then wider, and by increments it packed the interior of the sled with snow.

It began when a glob of frigid snow slopped onto Ernisse's face.

He jolted awake. In the first moment of awareness, Ernisse batted at the snow. He suddenly realized that it was all around him, packed along his sides, around his face, covering his feet. He tried to spring up, but his leg muscles cramped. All he accomplished was throwing off his covers. He fell back, stunned, now fully exposed to the wind, wearing only his long underwear. He fumbled the snow off his face with hands that were like dead weight. The blizzard pounded him with a barrage of crystal. He was freezing.

The mind can become amazingly clear in a moment like this. Ernisse remembers thinking: "You are in a lot of trouble." He hollered for Hickel over and over. He thought he heard a response, then decided it must be a hallucination. As he lay there in the blizzard, he began to visualize the process of sitting up, crawling back to his gear, digging through it, finding his pistol, and firing a shot. Yes, that would do it. That would bring help. The pistol.

Then Hickel showed up. Ernisse said later that he doubted he would have ever moved again. "I don't know what I would have done if he hadn't of come. My mobility was gone."

Slowly, the two men redressed Ernisse in his arctic suit, in his boots, in his hat, in his mittens. Hickel got him out of his sled and shook out the sleeping bag. He was stooped over Ernisse, trying to snuggle him in, when he felt a tap on the shoulder.

Hickel turned — and there stood Robin Thomas, face goggled, standing over his shoulder. "Have you seen the girl?" Thomas demanded. (Officials in Safety and Nome had reported Mellen Shea overdue and put the word out over the radio.)

Hickel remembers staring dumbfounded at Thomas. "It was like he was an angel."

Ernisse was also astonished. "It was unbelievable," he said later. "He just walked up out of nowhere."

Thomas and Hickel loaded Ernisse in Thomas' massive freight sled and drove Ernisse toward Safety.

Hickel and Corral made it into Safety by evening, and were joined by Shea and Bass. While listening to the broadcast of the

official banquet, they feasted in the Safety Roadhouse on cheeseburgers, soft drinks and spaghetti. Hickel heard that he'd been awarded the race's Iams Sportsmanship Award for assisting Ernisse.

Ernisse's dogs were retrieved the next morning by Thomas and a group of mushers. When Barron found out what had happened, he was concerned about the dogs, but ultimately found that Ernisse had kept them in good shape. "It was very important to me that those dogs were taken care of," Barron says. But "they came back in immaculate condition. I would lease him a team again."

But unlike his 14 dogs, Ernisse had been beat up badly by the Topkok-to-Solomon blowhole. In the days that followed, he slowly recovered. He suffered frostbite on his left hand and minor frostbite elsewhere, but he lost no fingers. No permanent injuries. In just over a week he was back at his job managing the bars at the Captain Cook. He wore a white cloth over his frostbitten left hand.

Interviews with Ernisse, Hickel and other mushers don't lead to any consensus about what, if anything, went wrong.

Maybe Ernisse got just a little too sweaty, took off his mitts a little too soon. Maybe he shouldn't have taken off his suit and shoes. Maybe he should have worn one more layer. Maybe he should have zipped up his sled bag before snuggling in for the night. All three — Ernisse, Hickel and Corral — say they sure wish they had stopped at that last cabin.

Maybe Ernisse — who trained hard, took good care of his dogs, carried sufficient gear — did nothing worse than commit a series of small mistakes.

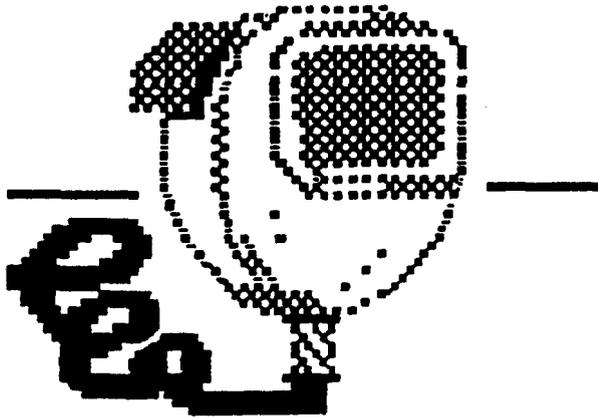
"That's how it always happens," Iditarod champion Martin Buser said later. "It starts out with a minor mishap, and it just gets bigger and bigger. One error, if you react the right way, can be forgiven. But react the wrong way, and it can kill you."

When the worst weather hit, Ernisse had been damp and chilled. His companions, for one reason or another, had been dry. Is the border between catastrophe and mere discomfort marked by something that slight? Damp gloves? A sweaty arctic suit?

Perhaps. Ernisse says he plans to learn from the experience and apply the lessons to future expeditions into Alaska's winter. But the bottom line for him is this: "I may not be able to do it next year, but the year after, if I can get the sponsors, I'll be back. "I want to do it again."

□ Doug O'Hara is We Alaskans staff writer.

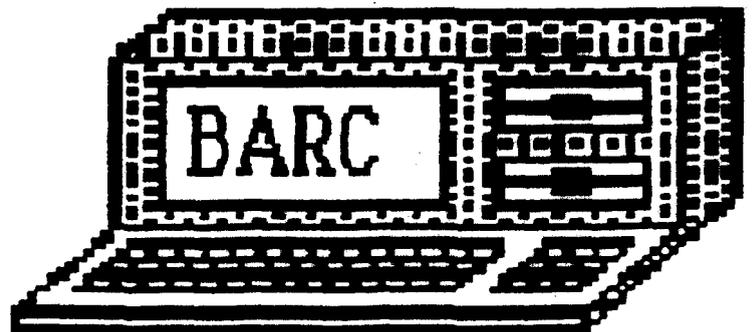
1991



JOHN BEARGREASE
SLED DOG
MARATHON
COMMUNICATIONS
PLAN

BY
B.A.R.C.

BEARGREASE
AMATEUR
RADIO
COALITION



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This is the eighth Annual John Beargrease Sled Dog Marathon. Amateur radio operators, (Hams), have had a long history of providing an essential service to many events in the way of communications. Their license allows them access to many frequencies not open to the general public. It also restricts what they are able to do with these licenses. This has caused misunderstandings and problems in the past and as a result this manual has been put together for all race volunteers, participants, and officials.

The manual is divided into the following headings.
I - Objectives; II - Checkpoints; III - Communication Facilities; IV - Transportation; V - Operational Procedures; VI - Interfacing With Others; and VII - FCC Regulations.

For you non-hams, communications is very basic and is described as follows. All the ham operators up and down the North Shore are considered a communications net. The smooth operation of communications is handled by a center called Net Control and is located in Duluth. "Net Control" controls the air, so to speak, and allows each checkpoint to report in an orderly manner. This year, race communication has five areas of concern; Net control, some road crossings, the 500 mile checkpoints, the 130 mile race checkpoints, and the 90 mile race checkpoints.

I - OBJECTIVES:

The objectives of this manual for the race are:
A. To define the requirements for providing communications with checkpoints, race officials and net control for purposes of safety, health and welfare of the mushers and their dogs.
B. To establish guidelines to ensure operators will comply with all federal regulations pertaining to communications.
C. To establish procedures for handling emergencies, gathering of data necessary for assessing status of crews and dogs, and obtaining routine assistance necessary for maintaining health and welfare of crews, dogs and supporting personnel.

II - CHECKPOINT DESCRIPTIONS:

In order to function efficiently, each checkpoint operator should have at a minimum all the following data for that checkpoint. Some of the information may never be used but if the need arises it will be available. Much of this information will be useful to race officials, participants, and volunteers as well as the general public and may be given freely to anyone who asks for it.

FACILITIES: It is important to all concerned, and especially ham operators, that they know which of the following is available at each checkpoint so that they may plan for the proper equipment and supplies required during the race.

Structures	Electrical power
Fixed	Plumbing
Mobile	Food
Telephones	Sleeping
Medical	

GEOPHYSICAL INFORMATION: Hams are very mobile and can operate under almost any condition. However, the type of equipment, antennas, power, ect. that they will bring depends on some of the following factors. The other information is needed in case emergencies arise.

Access	Distance to adjacent checkpoints
Trail in / trail out	Straight line
Crossroads	Trail distance
Terrain altitude	Distance to repeaters

OTHER RELEVANT INFORMATION: It is necessary for the ham operator to know who is "In Charge" and who he can give race information to:

Race officials Amateur radio operators Checkpoint officials

III - COMMUNICATIONS FACILITIES

The following is a listing of all possible communications facilities available along the race route. It doesn't mean all of them can or will be used but in extreme emergencies the list is available for use.

AMATEUR RADIO FACILITIES AND CAPABILITIES: Most ham operators have thousands of dollars worth of radio equipment and accessories available to use. They setup and maintain their own radios at no cost to the race and expect nothing in return except respect for their equipment.

REPEATERS

ARAC Repeater
freq. 146.94
location WDSE tower

NØBZZ Repeater
2-meter simplex 146.52
freq. 146.70, 443.85
location Bayfield, W1
Links

KAØTMW Repeater
freq. 147.18
location Duluth, near airport

NØBZZ Repeater
freq. 147.33, 443.85
location Proctor, Mn
Links

NARC Repeater
freq. 146.61
location Bayfield, W1

WHØHRO Repeater
freq. 147.36
location Grand Marais, Mn

Houghton-Hancock Repeater
freq. 147.33, 146.88
location Houghton, M1

Bessemer Repeater K8ATX
freq. 146.76
location Bessemer, M1

WL7AEC Repeater
freq. 147.09
location Silver Bay, Mn
Links

NON REPEATERS

2-meter simplex 146.52
HF 40 meter ssb, cw, packet
HF 75 meter ssb, packet
HF 80 meter ssb-meet on 3925
PICO net (then go to 3930 and up)

PACKET RADIO:

A problem that arose two years ago was packet stations within the race were unavailable for access because of the operators trying to find other routes to checkpoints. Also due to the characteristics of packet radio, when a question was asked, answer with a more detailed answer than a simple yes or no. Example question: Was the number of dogs for bib 32 correct at 14? Answer yes 32 correct with 14 dogs. This will allow for the time lag for packets to be accepted and confusion created by lose of the question off the screen. Further discussion on use of packet is needed for upcoming years.

COMMERCIAL: Local businesses make extensive use of radio and tv frequencies allocated to them. They operate under different rules than "Hams" but may be available under certain circumstances.

Car phones
Other VHF links

Local radio, tv stations
Link frequencies

LAND LINES: Telephones are an important communications link but cannot be used continuously without costing money and tying the lines up. Their use by ham operators should be limited to emergencies only.

C.B.: Short for Citizens Band, these frequencies are open to the general public but are limited in their power and range. They are good for short range communications.

IV - TRANSPORTATION

Some ham operators will either be volunteering for the first time or will be covering more than one checkpoint. Be sure you understand the maps included in the checkpoint packets. Any questions on how to get to any checkpoints can be answered at a BARC meeting. Be familiar with your assigned area to prevent delays during the race. Any questions, please ask an BARC officer.

V - OPERATION PROCEDURES

This is the most important section of this manual. It is important that all volunteer hams read this section and understand it thoroughly. Net control will adhere to these rules and will expect all checkpoints to do the same. Our main concern is safety of the mushers and their dogs, the volunteers and race officials, and the general public. Our secondary concern is that we operate within the FCC rules and regulations.

SCHEDULES: The schedules are based on a preliminary race schedule made up by race officials and based on past races and musher's experiences. The schedule is subject to change at the last minute by race officials and by weather. ALL CHECKPOINT OPERATORS ARE EXPECTED TO BE AT THEIR ASSIGNED CHECKPOINTS PRIOR TO THE ARRIVAL OF THE FIRST TEAM. This means they should be aware of the race progress themselves or check in with Net Control to see how the race is progressing.

*** All times will be in 24 hour local time. ***

DUTY ROSTERS: The final duty assignments will be handed out at the last BARC meeting the week prior to the race. Any questions or problems should be addressed to the Checkpoint Coordinator as soon possible.

CHECKPOINT TO NET CONTROL: Net control will begin operation fifteen minutes before the start of the race which is currently set for 18:15 January 15, 1991. Regular radio procedures will be followed. The following format for reporting is suggested for the sake of continuity.

Checkpoints will report as follows. "Net Control this is (call sign) at (name of checkpoint) checkpoint". Wait for Net Control to acknowledge.

"I have the following mushers and teams arrived at this checkpoint; Musher bib# ____ with ten (or whatever) dogs; Musher bib# ____ with ____ etc." Unkey your mike for three seconds and then resume. "The following mushers and teams left this checkpoint; Musher bib# ____ with seven dogs; Musher bib# ____ with etc. I have no further information. Over."

*** (ARRIVALS, DEPARTURES, THEN ANY OTHER.) ***

Net Control will acknowledge the information and ask for any other information. All emergency traffic will take priority and all other checkpoints will stand by.

At periodic intervals, Net Control will provide weather and road condition updates for checkpoint Hams.

Key Beargrease personnel arrivals and departures from checkpoints should also be forwarded to Net Control.

CHECKPOINT TO CHECKPOINT: Communications between checkpoints will be kept to a maximum of one minute or less and will occur only after regular reports are finished. Emergency traffic is the only exception. If the two checkpoints are close enough for simplex; the checkpoints must remain on repeater output freq. or tell Net Control when you're leaving and back on freq.

LOGGING FORMS: Each checkpoint communications operator is encouraged to keep the following logs. These forms are suggestions only and are available from the BARC officers.

1) RACE DATA FORM. This form is intended to make it easier for you to keep track of mushers and teams, and record when you have reported it to Net Control. It is recommended that you keep this form in case any disputes arise in the future.

2) COMMUNICATIONS LOG. FCC regulations require amateur radio operators to keep a log of their traffic. It is recommended that you use your own log and record your transmit times.

COMMUNICATOR ASSISTANTS: Each checkpoint is supposed to have an assistant for you to help relay and retrieve information from checkpoint race officials. We will try to get a listing of who these assistants are. When you arrive at the checkpoint, ask the checkpoint race officials or the previous ham operator who that person is.

EMERGENCY PROCEDURES: Emergency traffic takes precedence over all other traffic. If you have emergency traffic that can not wait for the end of regular reports or the five second pauses, use the standard BREAK ! BREAK ! BREAK ! Remain calm and state the following; "This is (call sign) at (name of checkpoint) with emergency traffic." Then proceed to state the nature of your emergency. Be specific! Use exact names, locations, times, etc. that will help us to direct the proper officials to the emergency.

An emergency is defined as: An incident requiring immediate attention involving a life or death situation of a human or a dog. The following Q-signals are incorporated for these special situations.

QIH-----Injured Human
QID-----Injured Dog
QDH-----Dead Human
QDD-----Dead Dog

THESE ARE FOR AMATEUR RADIO OPS ONLY!!!

EMERGENCY TELEPHONES NUMBERS: The telephone numbers listed in the checkpoint descriptions should be used if needed. 911 is available at all locations.

BACK UP PLAN: In the event of repeater failure or power outage at a repeater site, back up communications will be in this order. Primary: repeater link system. Secondary: use of the three back up repeaters; 146.94 in Duluth, MN., 146.61 in Bayfield, WI., and 146.76 in Bessemer, MI.. Permission has already been given for use of these repeaters as backup. Next and may be in conjunction with secondary,; use of Relay Hams on south shore of Lake Superior. Relay stations should contact Net Control when ever they are monitoring the Primary freq. If all else fails to this point, HF freq. are next. Contact will be first be attempted on 3930 ssb.

VI - INTERFACING WITH OTHERS:

CHECKPOINT RACE SAFETY OFFICIALS: Checkpoint race safety officials are responsible for the safe conduct of the race through their checkpoint. Any information they ask you to transmit regarding the safe conduct of the race may be transmitted after checkpoint reports. Examples of what may be transmitted are: a request to bring in more food, blankets, straw, or replacement volunteers; information concerning specific mushers and teams that are not currently available at their checkpoint.

MUSHERS AND HANDLERS: Mushers and their handlers may transmit over the air only that information that will help them to maintain their safety and health, NOT TO HELP THEM WIN THE RACE! Examples: A musher needs additional food, medical supplies, or clothing at the next checkpoint; or a musher had to turn back and needs to get his handlers back as soon as possible.

THE CHIEF JUDGE: The Chief Judge is responsible for the entire race and its safe conduct. He/she can be allowed to transmit just about anything he requests as long as it is not a flagrant violation of FCC rules or this manual. The Control Operator will be the sole judge of the Chief Judge's transmissions and may warn him if he is violating the law. If the Chief Judge continues to violate the law the Net Control will instruct the checkpoint ham to shut down his radio.

The Control Operator will take full responsibility for the Chief Judge's transmissions. The checkpoint operators will not refuse the Chief Judge. We must follow this procedure due to the nature of the Chief Judge's responsibility and his expertise and knowledge in running sled dog races.

OTHER RACE OFFICIALS: The only other race officials that may transmit over the air are the following: The Executive Director, Larry Anderson; The Race Coordinator, (both in blue bibs); The Chief Vet's Assistants (grey bibs); the Trail Boss; and the Checkpoint Race Safety Officials. The content of their transmissions must meet safety or health guidelines and you may question them and refuse to allow them to transmit except if talking to the Chief Judge. If you question the content of their transmission, ask net control for advice.

POLICE AND MEDICAL PERSONNEL: All police and medical personnel may request to transmit their business over the air as long as it is race related.

THE MEDIA: You are to have absolutely no contact with the media. If a media person asks for information, politely refer him/her to a race official. They have a right to use the air for safety and health reasons, e.g. one of their people was bitten by a dog and needs medical attention. Flat tires, blown engines, or needed equipment are not valid emergencies.

WHO TO CONTACT WITH QUESTIONS ON PROCEDURE: If you have questions on procedure it can be transmitted over the air, but Net Control would prefer you check the manual first and then call by land line if possible. If unable; contact Net Control.

VII - PERTINENT FCC REGULATIONS

97.110 Business communications prohibited

The transmission of business communications by an amateur radio station is prohibited except for emergency communications.

97.112 No remuneration for use of station

An amateur station shall not be used to transmit or receive messages for hire, nor for communication for material compensation, direct, paid or promised.

97.113 Broadcasting and broadcast related activities prohibited. An amateur station shall not be used to engage in any form of broadcasting, that is the dissemination of radio communications intended to be received by the public directly or indirectly or by intermediary relay stations.

97.114 Limitation on third-party traffic

(a) Subject to the limitations specified in paragraphs (b) and (c) of this section, an amateur radio station may transmit third-party traffic.

(b) The transmission or delivery of the following third-party traffic is prohibited:

(1) International third-party traffic except with countries that have assented thereto.

(2) Third-party traffic involving material compensation, either tangible or intangible, direct or indirect, to a third-party, a station licensee, a control operator or any other person.

(3) Except for emergency communications as defined in this part, third-party traffic consisting of business communications on behalf of any party.

NOTE: The above sections are only a portion of part 97 and all amateur radio operators are required to know part 97 in its entirety.

FCC office in St. Paul has been contacted as late 10/9/90 about the Operational Procedures in this manual. NO problems are foreseen.

1992 JOHN BEARGREASE SLED DOG
MARATHON
COMMUNICATIONS PLAN
BY
B.A.R.C.
BEARGREASE AMATEUR RADIO COALITION

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NARC Repeater
freq. 146.61
location Bayfield, W1

** WBØHRO Repeater
freq. 147.36
location Grand Marais, Mn

** KFØQJ Repeater
freq. 147.09
location Silver Bay, Mn

** KAØTMW Repeater
freq. 147.18
location Duluth, near airport

Houghton-Hancock Repeater
freq. 147.33, 146.88
location Houghton, M1

NØBZZ Repeater
freq. 147.33, 443.85
location Proctor, Mn
Links

Bessemer Repeater KØATX
freq. 146.76
location Bessemer, M1

NON REPEATERS

2-meter simplex 146.52
HF 40 meter ssb, cw,
HF 75 meter ssb
HF 80 meter ssb-meet on 3925
PICO net (then go to 3930 and up)

COMMERCIAL: Local businesses make extensive use of radio and tv frequencies allocated to them. They operate under different rules than "Hams" but may be available under certain circumstances.

Car phones
Other VHF links

Local radio, tv stations
Link frequencies

C.B.: Short for Citizens Band, these frequencies are open to the general public but are limited in their power and range. They are good for short range communications.

IV - TRANSPORTATION

Some ham operators will either be volunteering for the first time or will be covering more than one checkpoint. Be sure you understand the maps included in the checkpoint packets. Any questions on how to get to any checkpoints can be answered at a BARC meeting. Be familiar with your assigned area to prevent delays during the race. Any questions, please ask an BARC officer.

V - OPERATION PROCEDURES

This is the most important section of this manual. It is important that all volunteer hams read this section and understand it thoroughly. Net control will adhere to these rules and will expect all checkpoints to do the same. Our main concern is safety of the mushers and their dogs, the volunteers and race officials, and the general public. Our secondary concern is that we operate within the FCC rules and regulations.

EMERGENCY PROCEDURES: Emergency traffic takes precedence over all other traffic. If you have emergency traffic that can not wait for the end of regular reports or the five second pauses, use the standard **BREAK ! BREAK ! BREAK !** Remain calm and state the following; "This is (call sign) at (name of checkpoint) with emergency traffic." Then proceed to state the nature of your emergency. Be specific! Use exact names, locations, times, etc. that will help us to direct the proper officials to the emergency.

An emergency is defined as: An incident requiring immediate attention involving a life or death situation of a human or a dog. The following Q-signals are incorporated for these special situations.

QIH-----Injured Human
QID-----Injured Dog
QDH-----Dead Human
QDD-----Dead Dog

THESE ARE FOR AMATEUR RADIO OPS ONLY!!!

EMERGENCY TELEPHONES NUMBERS: The telephone numbers listed in the checkpoint descriptions should be used if needed. 911 is available at all locations.

BACK UP PLAN: In the event of repeater failure or power outage at a repeater site, back up communications will be in this order. Primary: repeater link system. Secondary: use of the two back up repeaters; 146.61 in Bayfield, WI., and 46.76 in Bessemer, MI.. Next and may be in conjunction with secondary,; use of Relay Hams on south shore of Lake Superior. Relay stations should contact Net Control when ever they are monitoring the Primary freq. If all else fails to this point, HF freq. are next. Contact will be first be attempted on 3930 ssb.

VI - INTERFACING WITH OTHERS:

CHECKPOINT RACE SAFETY OFFICIALS: Checkpoint race safety officials are responsible for the safe conduct of the race through their checkpoint. Any information they ask you to transmit regarding the safe conduct of the race may be transmitted after checkpoint reports. Examples of what may be transmitted are: a request to bring in more food, blankets, straw, or replacement volunteers; information concerning specific mushers and teams that are not currently available at their checkpoint.

THE CHIEF JUDGE: The Chief Judge is responsible for the entire race and its safe conduct. He/she can be allowed to transmit just about anything he requests as long as it is not a flagrant violation of FCC rules or this manual. The Control Operator will be the sole judge of the Chief Judge's transmissions and may warn him if he is violating the law. If the Chief Judge continues to violate the law the Net Control will instruct the checkpoint ham to shut down his radio.

The Control Operator will take full responsibility for the Chief Judge's transmissions. The checkpoint operators will not refuse the Chief Judge. We must follow this procedure due to the nature of the Chief Judge's responsibility and his expertise and knowledge in running sled dog races.

OTHER RACE OFFICIALS: The only other race officials that may transmit over the air are the following: The Executive Director, Larry Anderson; The Race Coordinator, (both in blue bibs); The Chief Vet's Assistants (grey bibs); the Trail Boss; and the Checkpoint Race Safety Officials. The content of their transmissions must meet safety or health guidelines and you may question them and refuse to allow them to transmit. If you question the content of their transmission, ask net control for advice.