DOG TALK

The official **unofficial** newsletter for FEMA dog handlers

Measurement of Behavior
Susan Martinez, FEMA Type I handler

Behavior analysis is a way to measure what we believe the dog understands and provides feedback about the effectiveness of training. Certifying tests are used to measure the ability of the dog to perform a specific standard however most standards consist of many different behaviors that are tested in one setting. Handlers may measure their training effectiveness long before attempting the FEMA standards by completing very simple data collection trials during the training process. This article will focus on how to measure behavior and how to guide training based on the results of those measurements.

Behavior is measured by the following:

Duration: The length of time for which a single occurrence of the behavior pattern lasts. For example the 5-minute down stay.

Intensity: Intensity has no universal definition; however it may be helpful to make judgments about the intensity or amplitude of a behavior pattern. For example: the height of a jump or the sound intensity of a vocalization. Measurement of the sound intensity of a vocalization is described as the number of component acts per unit time spent performing the activity.

Frequency: The number of occurrences of the behavior pattern per unit of time or rate of occurrence, for example a rat presses a lever 60 times during a 30-minute period of time.

Latency period: The time in seconds it takes to perform a behavior after the command or "cue" has been given. Measurement of latency is a guide to handlers in training their dogs. Handlers make an assumption that the dog understands the behavior yet never validate with data collection to determine the level of the dog's acquisition of the components in the behavioral chain.

*Note: Latency measurement of a **completed** behavior cannot be taken during training. This is because latency measurement from the time a command is given to the time the response is completed usually involves an understanding of the entire behavioral chain. The chain may be broken down into smaller increments at which time measurement may be conducted. During training the behavior is shaped in steps that change as training progresses. Latency during training should be defined as the time in seconds that it takes for the dog to **BEGIN** to perform the behavioral sequence. For example the bark alert at the barrel. The bark alert is shaped in many

steps. A handler may first shape the bark by bridging approximations to the final bark. Initially the bark may be a whine, then one bark, then the dog is bridged when it has a strong bark, finally the bark is placed on variable reinforcement where the handler has shaped a series of barks that are equal in quality and rapid in delivery. The latency period from the time the cue "bark" is given until the time the dog delivers the bark is measured. This may have a criterion of less than 3 seconds in order to proceed to the next step in the training plan.

The final indication behavior is measured once it has been trained in order to determine if the dog has processed the information and understands training expectations. The specific criterion for measurement may be a measurement of the latency of the bark at the barrel when the dog is within a 1-foot radius of the barrel. The criterion may be an immediate focused bark alert once the dog enters the 1-foot radius zone.

Prior to any training a baseline data collection is done to determine what the dog knows. Often handlers believe their dog understands a behavior, however once a baseline is collected it is often very obvious how much the dog really understands the command or cue. For example, if a program wanted to determine how rapid their dogs would commit to a source, they could set up a controlled situation and measure the results. This can be in the usual training area with the usual environmental distractions. It does not have to be in a sterile environment as there really is no such thing—even a laboratory setting has smells that identify it. If the bark alert latency is measured, a bark barrel is placed a given distance from the handler—say 25 yards. The dog is released and no further commands given by the handler.

Measurement may be two different intervals:

1. The time to the one foot radius around the barrel is measured and

2. The time from getting inside the "hot zone" (the one foot radius around the barrel) to the time the dog initiates the bark response.

The latency of travel to the barrel is important, as the dog may not show enthusiasm and motivation for the work. Once at the barrel a separate time is measured to determine a "quick" bark alert without further prompting from the handler. The time criteria for the short latency may be determined before the tests. A five second time period for the dog to initiate the bark alert may be given as the definition of criteria.

Other behaviors may be documented if the dog exhibits a delay in getting to the barrel. These may consist of urinating, sniffing the ground, running away, etc. There may be other problems that the handler has missed if some of these behaviors are occurring. Measurement of training will ensure that handlers are prepared when they come to test rather than find out their weaknesses in training at the testing field. After the data collection has been done and it is determined the dog requires further training, then a training plan may be developed with a training flow sheet that will gauge effectiveness (see attached form). The definition of topography in the behavioral flow sheet is the final picture of the behavior.

Many of the behaviors we train in USAR may be measured at various training intervals. Obedience, agility, directional go outs or duration on the pallet, focus at the handler, are just a few. When handlers have a plan, are able to modify that plan when needed, and measure the effectiveness of their training, then they will shorten their training time and meet their goals for certification.

References:
Applied Behavior Analysis by Paul Chance
Exploring Animal Behavior in Laboratory and Field by Ploger and Yasukawa
Measuring Behavior An introductory guide by Martin and Bateson
Applied Behavior Analysis by Cooper, Heron, and Heward

Ask the Subcommittee

Ask the Subcommittee is a new feature in Dogtalk to address any questions you may have regarding FEMA canine certification:

1) Can I bring my own map sheets?

Yes, as long as it is the FEMA approved map sheet or it will need to be transferred to the FEMA approved map sheet.

2) Where does the total number of floors in a building go and where does the number that you searched go? Do I need to know this for the test?

You do not need to know this for the test. It would go under the incomplete or the completed search.

3) Can I use a GPS for mapping in Type I?

Yes, but it is not required.

4) Do I put the TIME IN under the name of our TF in the building marking system X?

Yes you do, but it is the search marking system, not the building search marking.

5) Can my dog wear a coat during the long down if its cold?

Yes

6) On the Type I limited access pile, if I return to my start point after finding my first victim, may I go back to the first victim location again?

You can only access the pile if the dog alerts there again

Attention Evaluators and Shadows…

The next Evaluator Conference calls have been scheduled for

June 1 at 1200 hrs. (noon) EDT
and
June 9 at 2100 hrs. (9 p.m.) EDT

All rostered evaluators and shadow evaluators who are currently in the program must
notify
Teresa MacPherson: TMAC786@aol.com
or
Bruce Berry: rbberry@sandia.gov
to let them know which session you plan to "attend".

You will be given the call in phone number and the codes when you contact Teresa or Bruce.

New Lab puppies…

Delta, Bonnie Schriner's Type I lab (CO-TF1), just whelped 10 little working pups. They are all black (7 girls 3 boys). Delta is a daughter of Jenner, Ann Wichmann's dog. Many of Delta's siblings have become Type I dogs: Ronin (NM-TF1), Aja (NM-TF1); Lance (CO-TF1); Torie (CO-TF1); Georgia (VA-TF1); Kenya (NE-TF1); and HiTech (NM-TF1).

The sire is a 500 pt. UKC hunting dog named Yahoo! and can be viewed at www.duckdawg.com. Pups will be ready for their new search homes July 1st. If you are interested in one of these pups, email Bonnie via bonnie@bonnieschriner.com.

From the Canine Search Specialist school in Indianapolis in April 2005..
The hotel was nice with fountains and mirrors
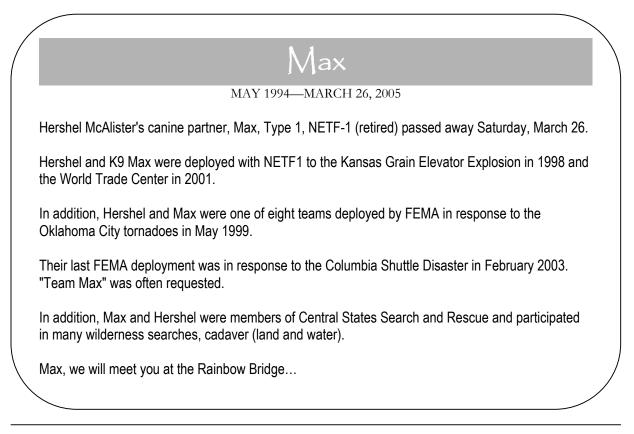*We loved the free food and of course the free beer.*

We had Teresa MacPherson as "Maxxie" the dog
Which taught us some things that are not in our FOG.

We heard about safety and canine drive
And the role of the Helper - and how to keep THEM alive..

We sat in the classroom and ran on the rubble
And from dusk to dawn, we kept out of trouble.

But the STM's sure met their fate -
When they partied hard and stayed out late.

We made buddies and friends at CSS school
And we know the search dogs are one heck of a "tool".

Max

MAY 1994—MARCH 26, 2005

Hershel McAlister's canine partner, Max, Type 1, NETF-1 (retired) passed away Saturday, March 26.

Hershel and K9 Max were deployed with NETF1 to the Kansas Grain Elevator Explosion in 1998 and the World Trade Center in 2001.

In addition, Hershel and Max were one of eight teams deployed by FEMA in response to the Oklahoma City tornadoes in May 1999.

Their last FEMA deployment was in response to the Columbia Shuttle Disaster in February 2003. "Team Max" was often requested.

In addition, Max and Hershel were members of Central States Search and Rescue and participated in many wilderness searches, cadaver (land and water).

Max, we will meet you at the Rainbow Bridge…

Chip

Linda's Hoffert's Golden Retriever K9 Chip passed away April 1, 2005. Chip certified as a FEMA Type 2 canine for NETF1 in August 1996 and was deployed to the grain elevator explosion in 1998.

Linda has been and continues to be a mentor to NETF1 Canine handlers, particularly those of us in Springfield.   She attended CSS school in Camp Atterbury, IN, in October 1994.

Linda was instrumental in teaching Deborah Goodman and K9 OneSoc obedience, directability and agility. Linda taught Kyle Tjelmeland about canine behavior and was instrumental in teaching K9 Reggie obedience, directability and agility.

When Amy Rising was looking for a Golden puppy, Linda put her in contact with K9 Louie's breeder. Linda had a littermate to K9 Louie.

For many years in the late 90s, Linda was my only training partner in Springfield. Without her, K9 Ditto would not have been able to recertify Type 1. K9 Chip was Ditto's best canine friend.

K9 Chip and Linda were members of Missouri Search & Rescue Canine, our wilderness search team, as well as NE-TF1 and MO-TF1.

Elaine Sawtell

Canine Ivey

Today, Ivey lost her gallant battle with bone cancer. She put up a good fight - surviving 5 weeks after the vet gave her 2 days to live. During those 5 weeks, she had her bad days, but mostly had good days and never passed up an opportunity to work or play tug. Even though she put on a
good act - looking up and wagging her tail every time I went into her room, the last couple of days of her life were the turning point and unfortunately I had to make the decision to put her out of her pain.

Ivey had a great career - 62 searches with 8 finds and 2 assists not including all of the bodies and pieces she located at the World Trade Center on 9/11/01. She had the best work ethic I have ever seen in a dog - nothing distracted her with the task at hand. Even though she had her critics and never managed to become FEMA Type I certified, she was all business and only wanted to please me.

I would like to thank all of you for your kind words of support and your sincere concern for her welfare. We all have a special bond with our animals and sometimes take for granted their unconditional love and willingness to please us. We work with these remarkable animals so much
that they become an extension of us; that when we lose one - whether to old age or something unexpected like this - we lose a part of ourselves.

Jan (Brennan) - you've always said that God made dogs lives so short so we could love more of them. This is true - but it sure hurts when they leave us.

THANKS AGAIN FOR ALL YOUR SUPPORT and give your own K9 partners a big hug.

Nancy, Bailee, Sable and Greta

✰ ✰ ✰ ✰Kudos to…..✰ ✰ ✰ ✰

DOGTALK is pleased to announce that the following Canine Search Teams have recently gained certification (or **re-certification)** as FEMA US&R Type I or II Canine Search Specialists:

✰ Rainy Fremont, CA Results – March 2005

Type I Certified: Rick Lee & Anna (CA-TF7), Susan Vodrazka & Hero (CA-TF1) and John Dean & Pic (AZ-TF1)

Type II Certified: Sharon Gattas & Aubrey (CA-TF6) and Ann Wichmann & Sirius (CO-TF1)

✰ Denver, CO Results – April 2005

Type I Certified: Mike Agnew & Kenya (NE-TF1), Donna Black & Hi Tech (NM-TF1), Susann Brown & Rose (TX-TF1), Roxanne Dunn & Sky (CO-TF1), Lee Prentiss & Tara (MA-TF1)

Type II Certified: Hilda Wood & Flash (FL-TF1) and Andrew Pitcher & Andy (NE-TF1)

✰ Virginia Beach, VA Results – May 2005

Type I Certified: Libbi Kienzle & Josh (FL-TF1), Jim McKinney & Ronin (NM-TF1), Brian Smithey & Savannah (FL-TF2), Sharon Grant & Jed (MD-TF1), Janet Merrill & Chai (MA-TF1), Joe Clawson & Abby (MD-TF1) Zairath Perez & Chopper (FL-TF2), Elena Lopez de Mesa & Streater (FL-TF1), Teresa Gajate & Tory (FL-TF1), Steve Driscoll & Blaze (FL-TF1), Mike Conners & Hobbs (FL-TF1), Andrea Schaffer & Sasha (IN-TF1) and Ann Wichmann & Lance (CO-TF1)

Type II Certified: Bobbie Snyder & Willow (PA-TF1), Anne Dottore & Sniper (IN-TF1), Michael McKenna & Maggie (TX-TF1), Mark Hopkins & K.C. (MD-TF1), Robert W Evans & Spanner (MD-TF1), Dave Paananen & Karl (MA-TF1), Deborah Goodman & Keira (NE-TF1), Cindy Zepp & Fram (VA-TF2), Linda Morgan & Marko (VA-TF1) and Sonja Heritage & Czaro (VA-TF1)

Twister Task – March 05
Linda Pike

(reprinted with permission- NZ USAR Search Dog Association)

The first I knew about a tornado sweeping through Greymouth (West Coast of the South Island, New Zealand) was when my pager went off at work. Expecting to see the usual message (another earthquake reading or details of a training session), my eyes and mouth must have widened considerably as I read the words, Tornado/Greymouth, Task force 2, mobilise. I must have read it a couple more times before it sunk in, made a quick exit from work to get home to pick up gear and dog.

I couldn't help but think that this was our second USAR deployment within a few months (dog handlers in the past would always discuss the merits for training dogs in USAR, often saying that we would probably never get used in our lifetimes!).

The tornado hit at 1300 hours, our pagers went at 1400. The advanced party of seven including our structural engineer had departed in a helicopter by 1500 (in which they had a horrendous flight over to Greymouth because of gale force winds and torrential rain through Arthur's Pass).The USAR

truck with the equipment, the flat-deck fill of wood were ready soon after, so that the main team was driving over in convoy by 1700. Following the initial briefing, all we knew was that buildings that had come down, there was a lot of structural damage, but that the authorities were 90% sure that there were no missing or trapped people. Even so, the dogs needed to go (just in case of the other 10%) and also for the possibility of secondary collapses in unsafe structures.

Arrived in Greymouth at approximately 1900. A bit surreal really as all looked quite normal and the weather had certainly improved. As selective as tornadoes go, there was a few streets of devastation and the rest of the town unaffected. The Greymouth fire station was to be our base so unloaded the equipment there. A briefing was held by the advanced party that had determined on their reconnaissance which buildings needed to be worked on that night in order of priority to make them secure and safe by the morning. Three squads of technicians were organised and tasks discussed. The support team was sourcing materials from building depots and the dog/support team were tasked to find some food for the technicians before they had to go and work through the night. As it was getting late, the only place open suitable for bulk food was KFC. The staff were great and told us if we had come from *"over the hill"* to help them, then we could have the food free of charge (A USAR certificate of thanks was sent to them later).

The dog team was deployed to a premise where the roof had pancaked in, to clear it and make sure no-one was there. This was our first look at a *"real"* pancake collapse and although small, had a number of voids we could see. (We usually have them built for us - the major difference I guess, was the *very* nice red sports car and equally nice jet-ski squashed at the bottom.
Brenda worked Milo through the collapse (and again as seen at the cashel chambers deployment); this highlighted the importance of control and directability to clear an area in which the handler may not enter. We found out the next day that this building was a two story, but the top level had blown away and was now scattered on a hillside. A couple of business owners in this area were worried about their businesses being looted with the damage and the power out, so we had a walk around the area with the dogs to check there were no people milling about.

Stayed the rest of the night at the Hairy Lemon packbackers. Two squads got a couple of hours sleep and the third squad kept working until they were relieved when the others returned. Graham, Brenda and I exercised the dogs first thing, had breakfast, then went to the fire station and looked after computer, comms. etc. and sent Graham on some squad errands while Rhonda and other support members went for their breakfast. Mid morning, we were able to go back to the disaster sites in the daylight and observe the damage.

Some of the things that stick in memory are:

- 16 houses, 24 businesses and dozens of cars damaged in a matter of seconds
- Some houses totally flattened, others ripped open, garages just gone!
- Timber and sheets of iron embedded in the ground
- Concrete power poles snapped in half
- Trees uprooted, cars damaged beyond repair
- Concrete walls that have buckled under the pressure
- The people who wanted to tell us about their experience and how close they had come to being seriously hurt and all the people of Greymouth helping each other out.

The decision was made at 1300 hours that the operation would close down, so the trucks were loaded and the team returned to Ch-Ch. An excellent debrief was held on the following Tuesday in which all team leaders and squads discussed the event and everyone found out what work the others had done. Even though everyone was pleased in the way the team deployed and worked here was a lot of discussion on things to be improved on. The real deployments are always big learning curves and because of this we become even better prepared for the next.

The Life of Duncan…
Editor

Duncan wasn't a search dog. In fact, he frowned upon the "working class" – thought he was above manual labor. His most memorable "finds" were certainly pieces of food inadvertently dropped on the kitchen floor.

My sister Bev sent me Duncan's obituary, which was posted by her husband on a cyberspace bar for fighter pilots. I think we can all agree with his final words:

Duncan Mackay Lamb was a Westie-a White West Highland Terrier. We got Duncan as about a 7 week puppy. Those of you not familiar with terriers do not understand the concept of a terrier puppy. This is a breed from Scotland bred to hunt and kill vermin-rats, weasels, badgers-for those of you not familiar with badgers, think about the most aggressive fighter pilot you know with a really bad attitude and a hangover. On a good day, that is a badger. Most days a badger is worse. Duncan never met a badger, but he was genetically prepared for that event. (He did meet Pilgrim and Turk, but that is another story,) Duncan was the CC of 47th Street here in Sacramento. He had a federal rap based on his (well deserved) two attacks on the postal employee but was otherwise a stand up citizen.

Duncan loved his family, and was probably a Republican-hard to tell with Westies, they keep their own counsel. About two weeks ago he was diagnosed with a big, non-resectable, tumor in his chest. He did well until today when he became obtunded. We took him to his vet, and released him. He was thirteen and a half. "Releasing him" is an easy phrase but a hard decision. He was a great friend and Bev and I are in his debt for his friendship. He was only a dog, but that phrase means nothing unless you have had a dog. It then means everything.

Ron, grieving in Sacramento

The National Certification List of FEMA Certified Disaster Canine Search Teams is provided by Lynne Engelbert. (Lynne's e-mail: lengelbert@mail.arc.nasa.gov) It's included with the newsletter as an EXCEL spreadsheet. **PLEASE notify Lynne of any changes in address, status, etc!!!**

Please forward any news, scheduled events, letters to the editor, or other info you want disseminated via **DOGTALK**, the underground canine newsletter to Anne McCurdy: amccurdy@clarian.org