Tarsacci MDT 8000 Usage Notes **Tips and Info about the MDT 8000 metal detector.**
Updated January 5, 2020

No guarantee these tips will work well or that they are mistake free. Use at your own risk! Some early tips might be superseded by later ones. These are just selected tips/comments, not all.

From posts on dankowskidetectors.com forum, mostly by NASA-Tom (Tom Dankowski) unless otherwise shown. In chronological order, from October, 2018, to December, 2019. Many of Tom's comments address a particular user (Badger, Dew, Cliff, etc.) who asked a question. I've included ones of general interest. Latest updates start on page 16. --TallTom

NASA-Tom [PM]
ON THE HORIZON = MDT-8000
October 05, 2018 02:59PM

Registered: 13 years ago
Posts: 8,447

Here it comes..…… a bit of a paradigm-shift in technology/technological-advancements. I want to give you guys a (moderate) heads-up..… for something that is on the horizon. It is built by a small company (medium/small) that makes military-grade underwater locating devices. One of those engineers is a avid detectorist. He has convinced/steered the company into inventing/building a hobby-line detector. It's been in-the-works for about 18 years. All of the prototyping had been completed 2 years ago. It has been an "unreleased" completed product for the past 2 years. (((We are at: "shoot the engineer" time-continuum))). It is not quite a VLF..... and it's not quite a PI. Ergonomically..... it has been 'pushed' to be in the shape of a detector...that we would 'recognize' as a detector. It's been some work..... to get the unit to 'sound' like a metal detector. . . . . that we would 'understand' it's language/audio. It is "quirky". You will like some of the quirks.....and can put some of them to good use. Some things that I can share..… at this time:
* Very specifically targets TWO INTENTS:
1. Wet-Salt
2. Bad Mineralization
This is to say..…... it does NOT target mega-trashy areas..… does NOT target carpets of nails.
* NOT for beginners/novice. Targeted for seasoned detectorists.
* IP-68
* 11" x 8" DD open coil (hydrodynamic)
* Electronics designed TO/FOR the coil. (((If you want to change coils..... you must change the electronics. This is a very specific/discrete platform.)))
* Weight/Ergonomics: Very similar to F75/EQX/T2
* One rechargeable battery. 1-1/3 length of a C-Cell. Diameter of a C-Cell. 6000mAh 3.7V. This is a 'off the shelf'.....easy to access/buy.....and YOU can change it... in about 40-seconds. (Under the armcup).
* Full VDI ID ….. with a 60-point span.
* A very real/correct All-Metal Mode. Disc Mode. ID Mode.
* Iron span range is: -30 to 0. And for a very specific/discrete electronic platform rationale/justification. You DON'T want this changed.
* Non-Ferrous span range is: 0-30.
* In certain modes..... very responsive to high conductors.
* Inches deeper than Excal/CZ/Sov for coins and gold rings..... in a wet-salt environment. (((Almost exactly parallels the performance of my 'tuned/tweaked' AquaStar-II..... in the wet-salt. . . . . but. . . . . with FULL ID capabilities.))) Resonant (great) for tiny gold rings, small, medium and large gold rings. This is where the depth advancements have taken place.
* One of the paradigm-shifts: Ground Balance the unit in the dry sand FIRST. (((And in a different fashion: Hold coil about 10" above the ground. Press and hold GB button. Lower the coil to about 1" off of ground. Release GB button. DONE.))) Then..…… walk down to the wet-salt. . . and manually zeroize your local wet-salt

content/volume. Now the detector … no longer even sees the wet-salt. It is not 'canceled'. It is not phase-shifted out. It is not Ground Balanced out. The high conductivity of the wet-salt is no longer seen. This is a fairly large dramatic departure from all other detectors. First time in history. A paradigm-shift.
* This unit targets beach hunters.... and relic hunters in bad dirt. This unit loses depth/performance in bad dirt … but at a SLOWER rate than other units. It 'holds on' to good target ID's at deeper depths.... in bad dirt..... at a better depth/ID rate than other units.
* Trying to keep the cost below the CTX-3030 MSRP. If we don't market/advertise it..... the cost may be around $1600..... or slightly lower. The intent may be to sell the unit on this web-site (forum) only/exclusively. That way..... we can circumvent advertisement costs (which can be very expensive).
* For the most-part: K.I.S.S. theory has been employed.
* Heavy gauge carbon fiber.
More details to follow..… possibly.
Edited 1 time(s). Last edit at 12/22/2018 01:40PM by NASA-Tom.

[I'm leaving off all the headers and date stamps of most of the following messages to save space. However, they are in chronological order, and occasionally I include headers to make dates/writers clear.]

* Another one of the quirks is: Coil sweep speed. This unit is more sensitive to horizontal velocity. Too slow.....and you lose depth. Too fast.....and you lose depth. And this is one of the reasons 'why' this unit is targeting 'seasoned' detectorists. On a subconscious level..…a seasoned detectorist will automatically/subconsciously 'find the sweet-spot' without any effort. This usually happens on the first (fairly deep) target. You will find that a medium/medium-slow sweep-speed is pinnacle. Then your brain will be subconsciously auto-calibrated to this speed. No effort required.
Remember; this unit is 'different'. Medium sweep-speed is a very 'vague' term. Differently interpretive. But..… once again; I have zero concern for seasoned detectorists.

The lower the Freq..... the more stable the unit. And the lower Freq's are much deeper on coins.
* The last 20% of fringe depth presents more ID 'bounce'.

changing Freq's will mitigate (or rid) EMI
I have encountered zero 'chattiness' IN the water..… but I was using/testing 6-Khz, 9-Khz and sometimes 12-Khz. I know at 18-Khz and max/near-max Sens..... the unit is very chatty in the splash.

* In most cases..... the Tarsacci likes to be Salt balanced with the coil bobbing above the salt water. This is what presents the greatest differential. If you are moving the coil up-and-down (bobbing) IN the water..… fully submersed in the water..…. the detector hardly sees a delta/differential/difference in salinity 'change'. . . . hence/subsequently... making this unit more difficult to Salt balance IN the water.

In general..... on 6, 9 & 12-Khz.....the Tarsacci ID's a:
Nickel = 06
Zinc penny= 12
Clad dime = 17

In 18-Khz:
Nickel = 06
Zinc penny = 14
Clad dime = 19

The Ground Balance & Salt Balance settings will be different for each individual frequency. For example: If you Ground Balance and Salt Balance the Tarsacci on each individual frequency whilst at the beach..…. the unit will remember these settings when you turn the unit off. Soooooooo……. next time you go to the wet-salt beach..… all

the frequencies and correlating Grnd Bal & Salt Bal settings will be 'set'. It's possible...… but I doubt the settings will need to be changed slightly...… if even at all.,.,.,.,.,.,., each time you go back to the beach.
All this holds true for inland dirt hunting also.

On video...…….. the Mixed Mode sounds weird.
Without headphones...…. the Mixed Mode sounds weird.
Combine both...…. and it sounds horrible.
It 'might' be able to be captured on video.… just enough to understand..… if (whilst in Mixed Mode) you wave a nail by the coil...… then a medium conductor (like a nickel) by the coil…… then a high conductor by the coil.
What you will hear is: You will ALWAYS hear the 'all-metal' tone (regardless of Disc setting). You will also hear:
With the iron low conductor.. you ALSO hear the low-tone.
With a medium conductor..... you ALSO hear the mid-tone.
With a high conductor...…… you ALSO hear the high-tone.
When you increase Disc...… you will ALWAYS retain the 'all-metal' tone; yet, you will now Disc out the according (low, mid, or high) tone. . . . . dictated by Disc setting.

You guys are REALLY catching-on...… and very quickly! Yes...… 18-Khz is substantially the better performer..... in carpets of nails. I speculate Mixed Mode audio.... will be used by the relic hunters … in bad dirt. I do not have bad dirt in Florida..... so I choose ID (or all-metal) modes...… for my personal preference. I also like Threshold on -2...…. and sometimes dabble into Threshold -1.

* Coil is definitely waterproof! And yes..... the entire unit is waterproof.... down to 1.5-Meters..... for 30-minutes. A very small dab of nearly any household silicone …. placed on the O-rings...… is fine. The frequency/times in which you should do this...… is dictated by 'in-the-water' usage times. Simply looking at the O-rings.... will let you know if the residual coating of silicone has worn off.
* If you are hunting the wet-salt slope...… no..... you do NOT need to go out in the water to Salt Balance it. You can Salt Balance it on the wet slope! If you are water hunting...…. THAT'S when you should Grnd Bal on the water surface.

* Tones. Mixed Mode. Discrimination workings. == If you run Disc to max setting whilst in Mixed Mode...… you will no longer hear the low, medium or high tone. You would then only hear the one/single all-metal tone.

Chris...…. Your EMI "Black Sand" …….. vs...….. "Black Sand" off. The Tarsacci uses different filters (and other electronics) whilst in Black Sand Mode...….. which can cause just exactly what you are experiencing/seeing. There will be times when other Modes will cause this exact resultant. This holds true with any brand detector.

* Badger...…… If you are looking for silver and copper coins; you may find that 6-Khz (or 9-Khz) would suit those interests to a much greater extent. And probably more than just 1-inch.

* Always perform a Ground Balance FIRST. Then...…... you can perform the Salt Balance.

I'm glad to see folks experimenting with different settings and different frequencies. Yes..... the Threshold has a more pronounced effect on performance...….. then would otherwise meet-the-eye. This is to include; over other units threshold adjustments.

Yes...… you can run the Tarsacci without a coil cover...… as long as there are no jagged rocks. Yes...…... I run the Tarsacci without a coil cover.

As far as Grnd Balancing the Tarsacci…. by 'pulling' the coil from the sand...……. or by lowering the coil to the sand; both methods work. On my beaches...… I have yet to see a delta/difference with either method.

All 3 Modes are ……. for all practical purposes...…. exactly the same depth...…. with a tangential twist. The All Metal Mode is more human-ear friendly.... at higher Sens settings (and boosted Threshold settings). More specifically...….. falsing at higher Sens settings …. are more intelligible (vs the other two Modes).

To give you an example of how varied the Salt Balance changes..... from site-to-site: On most of the Eastern Seaboard of the United States...…… it appears the Tarsacci will Salt Balance at '27'. Here in Florida...….. from Jacksonville beaches …. down to Sebastian beaches...….. I'm landing on '26' or '27'...… for Salt Balance on these beaches. (((This is 'why' we have selected '27' as the factory preset for Salt Balance))).

Badger...…. That is EXACTLY how to use the Salt Balance..... to silence/rid the hot rocks...…. in a NON-SALT dirt environment. Your Ground Balance can still be balanced to the dirt/mineralization ……,,,,,,,,,,,, and your Salt Balance can be utilized for: yet, a different function (ie. elimination/silencing hot-rocks)……. and NOT affect the Ground Balance. There should be: zero depth gain..... zero depth loss: by adjusting the Salt Balance to rid hot-rocks. This also allows the unit to 'see-through' the hot-rocks.... removing the 'masking' culprit. This is another 'quirk' of the Tarsacci. (((A very positive/usable attribute))). This is a large advantage...… when you can adjust Ground Balance...… and Salt Balance SEPERATELY. Kudo's for this 'discovery' (((outside of the factory))).

Badger: When your detector has a numerically 'wide-span' of silence whilst Ground Balancing the unit...…… this is indicative of lower mineralization. If the Ground Balance is hair-splitting sensitive: just a few numbers above or below neutral (balanced)...… and the detector goes crazy.,,,,,,,,,,, this would be indicative of heavy/bad mineralization.

As far as Ground Balancing to dry sand...…. when there is no dry sand: I would recommend two choices. 1). Remember/Use the same Ground Balance setting that you achieved when you DID have some dry sand on your beach. 2). Or...… yes. Find a local beach that does have dry sand...… and find what the Ground Balance settings/numbers are... on that beach.

Dew..... no. You do not have to 'Salt Balance' to dirt. You can just simply adjust the Salt Balance to rid the hot rock(s).
Dew..... I recommend auto Ground Balance. BUT...… if the minerals are too low (which you will find here in Florida)….. then you can attempt manual Ground Balance. If there is no response through the entire spectrum range of Ground Balance...……. then simply place the Ground Balance around 500.
Dew..... I only recommend "Tracking" when there is a rapid varying delta/change in very short distances of dirt searched/traveled. Florida does not have this condition.... in nearly all locations.
Dew..... Black Sand is for magnetic black sand. BUT...… there are cases whereby invoking Black Sand mode 'can' present better performance. Because this is very site-specific...…. you must test this....in your locale...… in order to determine IF there are attributes of using this function.

Badger...…… For your hot rocks. (Depending on composition). Leave your Salt Balance alone!.... keeping the detector 'balanced' to the salt. BUT...… you can alter the Ground Balance to rid your hot rocks. Perform a Ground Balance on a hot rock...… and go from there. See if that helps.

Dew...……. Yes.... correct. Of the 3 Modes (All Metal, Disc, Mixed)…… there is no depth gain/loss; but/rather..... only a selectable personalized audio preference...… yet/however...… I do find that I can run Sens a bit higher in All Metal mode..... which THEN presents better performance/depth. This is also to say; If all settings remain the same...… then the performance will remain the same... throughout all 3 of the Modes.
….. And ……. I'm glad that you discovered that "Black Sand" invoked..... gives you substantially better ability to run much higher Sens settings.... and better Threshold settings. . . . . even though you have the exact opposite of black sand; your sand is nearly pure white...with near-zero mineralization.

Badger/Dew..…... If you "Ground Balance" to the wet-salt..… this will skew the Ground Balance more towards the wet-salt. . . . . which is wrong. LET THE """SALT BALANCE""" DO THAT!!!! And let the Ground Balance 'balance' to the minerals..... and NOT the alkali !!! (((That's what is neat about the Tarsacci))).

…..….and if you Ground Balance out the hot rocks..… you will experience much better see-through.

Dew..…. I'm REALLY wanting 18-Khz to work for you in the salt-water!...……...and..…… it does look like you are making major strides to make this work...……..as..…….. I can see..…... you are getting better at it! But... …. it may end up that you land on 9-Khz (with higher Sens settings)……. for hunting in the water. (((12 & 18Khz were never intended for underwater wet-salt; yet, I still think..… it 'might' be possible..… under extenuating circumstances))). I'm also glad that you got the Notch understood/working-out to your advantage. I would still recommend running Ground Balance on 560..… and leave it there..… because..…… Your beaches should be (almost) inert.
Black Sand is not a 'boost'...……. although...…… in certain scenarios …… it may 'appear' to perform as such.

Chris..…… The Tarsacci primarily targets the Relic hunters..… and the Jewelry (salt beach) hunters; so..……. the decision was made for this specific "1-Notch Window" type of Discrimination in the non-ferrous region.

Badger; yes, the Equinox is much more sensitive to small/tiny targets over the Tarsacci…….. due to the request of the bulk of the hunters NOT wanting to find small/tiny targets. They are not interested in earrings and tennis bracelets. What they want is...…. large gold rings. Soooooooo…….. the Tarsacci very specifically targets tiny, small, medium & large RINGS. And 'rings' are categorized as 'larger targets'.
If..…… for some reason...…… the bulk of the folks renig…….. change their mind...….. and want to find the small/tiny targets..... like tennis bracelets, gold chains, earrings, pendants etc...…. The Tarsacci platform lends itself nicely to the creation of GEN-2. It would still take some time...…. but...…. can be done.

Badger in NH [PM]
Re: ON THE HORIZON = MDT-8000
February 06, 2019 02:31AM

Registered: 8 years ago
Posts: 630

Here are the results from the wet sand depth tests. It went surprisingly well considering I'm still new to the machine.

Conditions today were perfect. Sunny, temps in the 60's, light wind. That doesn't happen very often the first week of February in NH.

I talked with Dimitar on the phone this morning and he gave me a lot of great tips to make sure I would have everything set up right. First I went to the dry sand beach just to see what kind of GB reading I would get on the dry sand. I lowered the Sense to 5 or 6 and used Auto GB like he said to do. Every spot I checked gave me a different number. Then I went to the wet sand beach that I chose for the testing. Dimitar also said that if there is no dry sand around, you can auto GB on the wet sand. Just find the least wettest spot you can and GB there. I did that and ended up with a solid 600 that didn't change. That seemed a little high but I figured I'd try it and it worked great.

For Salinity balancing, Dimitar said to dig a hole in the sand, let the hole fill with water and Salinity balance over that. You have to do the salinity balance procedure each time you change frequencies. Each frequency will have a slightly different number.

For the depth testing I had a silver quarter, a silver dime and a medium sized mans 14k gold ring. I had drilled tiny holes in the center of the coins, ran a nylon string through each one and tied a knot on the end. This is to ensure that coins stay flat when buried. I would bury the coin at 15 inches and slowly pull the coin towards the surface a little at a time until it just came into detection range. When I reached the edge of the max depth that the coin could be detected, I grabbed the string where it came out of the sand, pulled up the coin and measured the length of the string. It worked perfectly. The gold ring is attached to the end of a fabric measuring tape.

I tested the Tarsacci MDT 8000 against the Minelab Equinox 800.

Settings were -

Tarsacci - GB 600, SB 26-30 depending on Freq, Sense 7, Threshold 0, Disc 0, Mix mode.

Equinox - Beach 1, Sense 23, 2 tones, AM on, recovery 6.

To achieve a max depth designation, the detector must have a clear repeatable non-ferrous tone and reasonably accurate numerical ID.

Tarsacci max depth on the silver Quarter was 13".
Equinox was 10".

Tarsacci max depth on the silver Dime was 12.5".
Equinox was 9".

(All the Tarsacci frequencies picked up the coins at max depth but 6.4 kHz sounded best.)

Tarsacci max depth on the gold ring was 13". (All freqs picked it up but 18 kHz sounded best)
Equinox had an iffy signal at 11" and 10" but only got a decent tone and ID at 9".

I tried radically changing the GB number on the Tarsacci to see what that would do but came back to 600 because it got the best depth. I forgot to test Black Sand mode but will do that another time.

So the Tarsacci wins the depth test by a large margin. I am extremely happy with it.

REPLY from NASA-Tom:

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000
February 06, 2019 01:32PM

Registered: 13 years ago
Posts: 8,446

Badger..…... your results are nearly exactly what I find/experience … here in Florida...….,,,,,,,, with one Difference: I am not able to run Sens on '23' with the Equinox on my wet-salt beach. I can only run (as high as) '20' whilst in Beach Mode-1...… and the conditions must be perfect. For TESTING ONLY...…. I could almost run Sens as high as '23'...….. but this would be TOO unstable for actual wet-salt hunting...……. here on the Florida beaches (((higher salinity))).
Your Tarsacci depth results are correct.

Dew...…. Yes. When I Grnd Balance to the dry sand (here on the East Coast of Florida)….. there are times when the GB numbers run wild. In my case...… this is due to VERY low mineralization...…. and the Tarsacci is simply 'not seeing' anything to Grnd Balance TO...…. and will grab ANY number. . . . . hence.... the numbers are spanning the entire spectrum. I speculate that you are encountering the same!..... low mineralization resultant.

Dew...… Yes. If you Salt Balance the unit in 18Khz. Then you perform a Salt Balance in 12Khz. Then you perform a Salt Balance in 9Khz. Then you perform a Salt Balance in 6Khz.
The Tarsacci will remember the specific Salt Balance for that SPECIFIC frequency...…… soooooooo…… when you switch back to a different frequency...…. the unit will REMEMBER the Salt Balance number..... and still be Salt Balanced.
But...…… remember. Temperature of the water will change the salt level/volume (held in solution)…… hence; different days (or conditions) will CHANGE the level of the salt..... held in solution. This is 'why' you may see one or two points difference...… from day-to-day.

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000
February 07, 2019 11:30AM
Registered: 13 years ago
Posts: 8,446
Several more observations/thoughts:

It is REALLY neat to see the learning-curve that all Tarsacci owners are going through. (This helps me ….in many regards). Yes...… there's still more performance to be gained. No...… I'm not 'keeping secrets' about the unit...…. due to the varying conditions that each individual owner is exposed to.

One person reports that "Black Sand" invoked..... presents a tremendous performance boost.
Another person reports that "Black Sand" OFF.... presents a tremendous performance boost.

Another person reports that Salt Mode ON...…… in a non-salt environment..... presents better EMI stability under unique circumstances; subsequently allowing for much higher Sens settings.

Many people reporting a few inches deeper than Equinox..... on a gold ring...…. in the wet-salt. Equinox goes 9" on a particular gold ring. Tarsacci goes 1/3 deeper than 9" on this particular gold ring. (((1/3 of 9".... is 3-inches))). From an engineering standpoint...…. this "1/3 deeper".... is a tremendous gain.
I also want to say...…… in an air-test...…. the Equinox would win this test. But..... In the wet-salt (and especially IN the saltwater)…….. the Tarsacci is showing a paradigm-shift in technology.

The owners are starting to see that this unit is NOT a VLF (due to the ….above.... wet-salt resultants). . . . . even though some folks are still incorrectly claiming that it is a VLF.

One of the neatest characteristics of this unit is...…… the "Salt Balance" is completely divorced from "Ground Balance". 'Why' is this important/significant?
For example: Let's look at some other top-performer units in the wet-salt (or bad ground). The CZ-20 & CZ-21, Sovereign and Excal……. are locked into a form of "salt" mode. It is not adjustable. The Equinox can be "Ground Balanced" on the wet-salt. I speculate that what's taking place is...…. the EQX is primarily compensating for the wet-salt.,.,.,.,.,.,.,.,. and secondarily (maybe) compensating for the ground mineralization. This is a compromise of both.... with primary focus on the most inhibiting component...… which is the wet-salt.
Because the Tarsacci has a separate "Salt Balance" and separate "Ground Balance"...… you do not have to 'compromise' either. In fact.... you can accurately hair-split both. "WHERE" you will see the greatest attribute of this...…. is...…. wet-salt WITH black sand. The Tarsacci performs exceptionally well in this type of environment...… because you can achieve a perfect Salt Balance...…… AND...… achieve a perfect Ground Balance. This is 'why' some folks are reporting 1/3 greater performance with the Tarsacci…… over other units.

Something else I want to convey/impart...…… and in a non-expanded nutshell fashion: Lets use a Nickel (or gold ring) for example. When you air-test a Nickel with a particular detector.... it may air-test to 16". Then you bury the Nickel in the (salt) "damp" sand...… and can detect the Nickel to 11". Then you bury the Nickel in the "wet"

sand..... and can detect the Nickel to 10". Then you bury the Nickel IN the water..... IN the ocean...…. and can only detect the Nickel to a depth of 8" below the floor of the sand...… on the bottom of the ocean. >>>>> Now go see what the Tarsacci will do!!!...….. and you will also see …… again...…. that the Tarsacci is NOT a VLF.

The Minelab GPX series units (totally different technology..... and is comparing apples-to-oranges...…. because they are a P.I. platform) does indeed perform the best in black sand combined with wet-salt; yet, there is a lot that is forfeited in the ID arena/department...….. as compared to the Tarsacci. Depending upon your age, health, time-availabilities, digging capacities...….. and a host of other variables.,.,.,.,.,.,.,...… will dictate if the GPX or the Tarsacci more suits your capabilities/limitations.

This brings up another thought: I often wonder ……. where are all the Civil War silver coins...….. for those folks of whom are utilizing the GPX-Series units for Civil War relic hunting? I have never heard this reported.

McMaster-Carr is where the O-rings for the battery cover/door were acquired..... (for those interested).

I'm surprised that more folks are not 'queueing' in on the tremendous performance difference the Tarsacci is providing …… on your 10" deep 'on-edge' gold ring...… whereby ….. the Tarsacci can acquire/detect it at 10" (with mild settings). . . . . compared to the CZ only being able to acquire it at around the 5" depth mark. This stupendous performance difference (delta)…….. should open some eyes...……. and is the first/initial signs …. (with more discoveries to be made)……. of what the Tarsacci can do...…. and where it's 'design target' intent was engineered. Yes...…. 12KHz and 18KHz would perform even better …. on your tests (((gold ring on-edge))); yet, I understand 'why' you choose to use/test 9KHZ...….. because this is your intended frequency-of-choice for IN the wet-salt water. (A good plan).

All of this equates to "why" Dimitar & I have targeted 'experienced users' for the initial batch of MDT-8000's.

On a side-note; Gold rings that have a wide top (and narrow bottom)……. have a fairly large propensity to 'tilt' …… or...…. go 'on-edge'.,.,.,.,.,.,., especially if the wider/larger top of the ring ...has a top/setting/stone. If the top of the ring is heavier than the bottom...…. gravity will pull the heavy part of the ring: 'downward'. . . . . subsequently placing the ring 'on-edge'.

So far...….. (my skill-set level) on the wet-salt slope...…… I am up to a Sens of '9'...… and I vacillate between Thresh of -1 …. to 0...… depending on the variances of the water-table below the surface of the wet sand. If the (not visible) water table is fairly consistent (minimal movement & intensity)….. and the surface of the sand is smooth...…. I can (more easier) get away with a Thresh of '0'. All of this is whilst in 18Khz. Performance is eye-opening. I certainly cannot get away with these settings in the 'splash'...… nor can I use them IN the water …….. especially if the current is strong. If my intent is to be constantly IN the water..... and about chest-deep...…. I'll use 9Khz, Sens 9..... and..... once again; I'll vacillate between Thresh of -1 and 0...….. (depending on current strength/conditions.... and smooth sand). This (small for the beach) coil is presenting stunning depth results.

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000
March 04, 2019 02:13AM

Registered: 13 years ago
Posts: 8,446

Cliff...…… I'm still heavily biased with the All Metal mode. "Sometimes" I'll switch over to Disc mode...… just to check out a pinpointed target...….. especially if I suspect a steel bottlecap. With a true All Metal mode...…. THIS is what allows for higher Sens settings...….. as …… any aberrations in the sand (to include 'bumping' the coil on the sand)……. are MUCH easier to discern ..... via the 'expected' weak (and modulated) audio response.....that the All Metal Mode presents. In any of the ID modes..... this 'weak audio' response.... is a "full

on" target audio response. . . . . making it MUCH harder to discern between falsing..... or a real target; subsequently, causing the detectorist to fruitlessly lock-up his brakes TOO TOO often. All Metal Mode is much more discernable.

Paul...… I'm still stunned that you are using the Tarsacci in a park.... with fairly bad minerals..... hunting for old/deep coins...… and having success. Kudos! That was never the Tarsacci's intended purpose; yet/however... …. !

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The Tarsacci is not my first choice... in carpets of nails. The XP GMP is first-choice. Then the F75 with 5" DD coil is second-choice. BUT..... the Tarsacci is well above-average in iron.
There's something that I've been 'holding up my sleeve' with the Tarsacci (primarily due to the inability to find 'exacting' numbers). Try Ground Balancing out the rusted iron-oxides WITH a few small pieces of rusty nail. THEN go hunting in carpets of nails! See what happens!
(((You can also toy with the Salt Balance...… in 'adjusting-out' (blinding) the Tarsacci to actual iron. ---This is difficult; yet...…---))). I have not fully 'mastered' this yet; due to: variables.

Aaron; yes. . . . I (so far) have found that running 'Salt' Mode around iron..... seems to give a bit better ID/resolution. This is to include inland/turf/dirt hunting. This also holds true with Black Sand Mode. But...… there have been a few times where this theory (and configuration) has not been true. I'm still seeking solid/concrete data...… then: the physics behind it. (The "why"...…. for present/future advancements). IF I 'understand' it...…… then...……. I can (much) better apply it to real-world conditions..... much more readily (and successfully).
What's crazy is: There's a lot of DELIBERATE engineering that goes into a project; yet, there can be non-deliberate (unknown) side-effects in any design …..that present: attributes and detriments. Discover this. Then use wisely/accordingly.

Dew...…..... After 3-months; I finally have a answer for you. In a nutshell: The EQX loses 2.6" of depth on a Nickel with the coil submerged IN the saltwater...…. (versus the damp/wet-slope). It was the extensive amount of variables that made this time-consuming data: hard to acquire; hence, the 3-months. If the water was moving faster (horizontal velocity)..... there is greater depth lost. If the saltwater was splashing/crashing (via vertical velocity); a severe amount of depth performance is lost. Early morning(s) allowed a better chance of the ocean to present a bit more calm conditions...….. for the reduction of 'variables'...… so as to ascertain (overall) better aggregate collected data. . . . . for greater/enhanced source-validity. This 2.6" number...…. is a mean-average. You will see/witness this more-so..... than I.,.,.,.,.,.,.,.,. due to your West Coast Florida bathtub conditions.
(((Probably stating the obvious))): The more 'calm' the saltwater: the greater the detection performance.
I have not tested the MDT yet (another large chunk of time-impositions)...…. to see how much depth it loses on a Nickel 'in-the-splash'..... and 'IN-the-water'. I know it does not lose as much depth/performance...…….. as you, Cliff, Tom & Larry have so discovered; via multi-scoop requirements; yet, I do not have exacting numbers. What we do know (now) is: The SMF VLF IB motion-Disc platform..... loses substantial depth performance with 'moving' saltwater.

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000 New
April 25, 2019 10:09AM

Registered: 13 years ago
Posts: 8,446

I've been 'time-poor'...…… but let me see if I can 'input' some data.
I think what Dimitar was trying to explain in the Owners Manual/Website about Black Sand Mode not having

much effect on depth/performance is: In low mineralization areas..… there's minimal effect on depth with Black Sand Mode 'on' or 'off'. However, (as we are discovering)….. in the real-world..... which poses many different variables; there is indeed performance that can be gained/lost when Black Sand Mode & Salt Mode are selected/deselected. In some instances..... the performance gain is tremendous. That's why these functions/options are there. In my testings/documentings….. I have found that Black Sand Mode 'off' will present quite a bit more depth performance on the wet-salt beach..... nearly every time; yet, there are times where Black Sand Mode 'on' expresses a marked/measurable improvement. I frantically seek 'why'..... and have yet to localize to a common-denominator. At times..... it appears to be a dark gray sand that is not visible on the surface. A few other hunts..… and I could not see/find this gray striation anywhere; yet, Black Sand Mode 'on' was the winner.
Currently..…... I'm trying to discover Dew's (18KHz) findings of: Ground Balance of '27' is correct; yet, placing Grnd Bal on '40' will quiet down the unit. It is my Florida East Coast crashing waves (vs Dew's more mild Florida West Coast conditions) that are precluding (subsequent invalidation) or severely inhibiting my intent.

Dew..…. Black Sand Mode does alter some (unique) circuitry ….. and it does behave a bit differently when exposed to EMI. It is nearly akin to a different Noise Cancel channel on other detectors; yet, is not a 'freq-shift'.

Carolina..…..
1.) Yes..... if (say) a SB of 20 gives you chatter..… but 21-29 is stable.,,,,,,,,,,,,. choosing a setting 'in-the-middle' is a good choice.
2.) If salinity increases..... the 21-29 'quiet window' …. will then be 23-27. This tighter window is akin to 'how' high-volume mineralization responds with Ground Balance. The 'number/digit' tells you what 'type' of mineralization. The more narrow the window-of-acceptability for balance..… the higher the LEVEL of mineralization …. (but not the 'type' of mineralization).
3.) Although the Salt Balance numbers will 'delta' (differ) as you go higher up the slope..… making it 'look' like..... 'salt volume CHANGE'..…. causes this; rather, a salt-phase-angle-delta is the culprit.
4.) In your question of 'Tracking'..…. I would need to check with Dimitar ...if I can discuss this.,,,,,,,,,,,. as this platform is a bit different.

Dew; yes..…... if mineralization is minimum..…,,,,,,,, ANY detector will try to grab at thin-air (randomly grab anything it can get..... including EMI-induced/biased Ground Balance que).

Carolina..… I JUST got off the phone with Dimitar. "Tracking" only tracks mineralization..… and NOT salt.

Weird/Unique data (thus far):
About 70% of the Tarsacci MDT's are being used UNDER water.
About 70% of the Tarsacci owners.... are forum-silent. . . . . deliberately (and confirmed) not wanting additional competition. (This is approximately the: 'detectorist-standard-norm' for this industry. On par.).
These 70% Tarsacci forum-silent folks have no relationship/bearing to the 70% underwater users.

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000 New
May 02, 2019 10:40AM
Registered: 13 years ago
Posts: 8,446

Dew & Cliff..…. yes..…. you guys are in the 70% measurement of: IN-THE-WATER hunters; yet, neither of you are in the 70% speechless, don't-let-the-cat-out-of-the-bag... group!

Any brand of metal detector will have difficulty ID'ing composite metals..… the way WE want them to ID which "specific" portion of metal (in the composite) …… for our decision-making process. There is a principle-of-

physics that can be difficult for a Mfr (Design Engineer) to overcome/circumvent; ……. that being.,,,,,,,,,,,,,. For example: Electrons flow on the outer surface of a metal (composite included) target. If it is a steel bottlecap that has a outer (protective) coating of Zinc...…… the subsequent enveloping signal that a metal detector will (primarily) see.... is = ZINC (a non-ferrous portion of the composite metallic device). Sooooooooo……. this steel bottlecap will ID as a non-ferrous target. A Nickel-plated fishhook is another example. Principle-of-physics. (((Just because we can 'see' with our own eyes..... that a magnet will easily pick up a steel bottlecap...…. does NOT mean: That's what the metal detector also "sees". On-the-contrary!!!))).

BUT...….. Mfr's struggle with "how much" of WHICH PORTION of the composite metal should we allow our detector to: report/ID. . . . . IF the principle-of-physics can even be bent/altered. With Minelab, , , , , , the EQX being the primary example: we decided to create a user-friendly interface that would allow adjustability …. for the end-user (to get in trouble with!) to custom-tailor to specific/exacting applications. . . . . via a function called: Iron Bias. With Iron Bias being on maximum '9' setting...…… you have a Explorer.,.,.,. that is very (non-ear-bashing) friendly (especially to a novice)…… whereby; only a little iron-content in the composite...… and the target will ID as 'ferrous' to the detector. This comes at a (severe) cost of: Masking. ----- On the other hand; you can set Iron Bias to '0' on the EQX to ascertain substantial unmasking performance-resultant...…… (yes.....at a cost of more ear-bashing). To a seasoned professional...…. this is a major attribute. It is nice to have this user-friendly adjustability. (It is nicer to generate-to-inception: a paradigm-shift venue).

The Tarsacci is quite different (from the norm) in its engineering design operating parameters. It's """"perceived""" ID accuracy is only about 70% accurate...… when compared to conventional VLF units. I also need to say: The Tarsacci is 70% "ID-familiar" to us VLF users/hunters. It is in the remainder 30%..... that us seasoned hunters.....do not understand...….. and think there might be fault. (I call it: "quirky"...……..,,,,,,,,,,,,,,,,,,,, when...…….in actuality; this is a deliberate targeted engineering design intent --advancement-- that is proving to be a major attribute). So as NOT to infringe upon corporate protection..... it is difficult for me to (safely) explain more data. You guys have discovered that the Tarsacci is not a (no ID) PI. You have also discovered that the Tarsacci (do to this 30% delta) is 'different'...from a VLF.,.,.,.,.,.,.,.,. even though it looks VLF'ish….. due to: being able to select "VLF" frequencies; ie: 6.4KHz, 9KHz, 12KHz, 18KHZ. And...……. you are seeing that the Tarsacci is more than just a couple-of-tenths of an inch deeper than other VLF units...…. especially in salt and/or black sand conditions. With small quirks: comes major (usable) attributes. USE the EQX Iron Bias to your advantage (and unsuspecting learning-curve). USE the Tarsacci to your advantage (and unsuspecting learning-curve)! Learn, learn, learn!

Dew...…… My AquaStar-II...….. BEFORE ANY OF MY MOD'S...… could (very slightly) exceed 18" on a Nickel. And that's with a small 10" coil. Now...… my AquaStar will only detect a Nickel to about a foot. . . . . because it has been multiple-tweaked to very small gold. It is running around 8.8uS. The coil is my limiting factor..... precluding me from dropping below 8.8uS. The Tarsacci 'matches' the small-gold performance of my AQ; yet, the Tarsacci far out-performs this AQ on Nickels (and dimes).

This is correct. When you are in the 'Salt' Mode..... the Tarsacci does ignore chewing gum foil more readily. Come out of the 'Salt' Mode...…. and the foil is back (detectable).

Ok...…. I'm following you guys now. MDT did not lose depth on the gold ring IN the saltwater.....and...… OUT of the water (on the wet slope). Equinox does lose depth IN the saltwater..... as compared to Equinox on the wet slope. This parallels my validation results. Now get a small band 10Kt white gold ring...…….. put it on edge... ……. and see what happens!
(((Cliff, Dew …. or anyone else) = With a gold ring: Have you performed a IN-the-water...……. vs...……. on the wet slope,,,,,with the Excal???
Yes...….. nearly all flavors of metal detectors lose substantial performance (depth) IN the water.....as compared to

being on the wet slope. This includes my AquaStar-II. To the best of my knowledge..… the MDT is the only platform that shows nearly zero loss-of-performance whilst hunting in the water.

Dimitar is (slowly-but-surely) seeking to improving/enhancing the waterproof feature of the MDT. Nothing has been solidified yet..… but/yet... may go in the next model. Cliff & Dew..…. you sure are 'risking' that IP68 waterproof rating! Dimitar wants all to abide by the 5-feet deep at 30-minutes (control box only) rule.

Cliff..…. I'm happy to hear that you were achieving these comparison results (EQX vs MDT) with those lower settings on the MDT.

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000 New
June 19, 2019 03:22AM

Registered: 13 years ago
Posts: 8,446

FINALLY..…. we now have received the certification of FCC and CE for the MDT. This means that we can sell to anyone around the World now.

From forum user Aaron:
Rusty bottle caps, solid hits at 8-10+, 27-29+, w no negative numbers, however sound is “blan” metallic, not sweet. Whipping coil over target immediately reveals to be iron, not getting fooled as much
As per Dimitar:
Invoked Salinity function, seemed to help in smaller iron
Reduced DISC to -15 to -20 in iron
Used 12khz, not digging as much tiny foil anymore, (9khz is even better) haven’t found any small gold either though.....
Regarding Discing Out Small Flat Foil#
Try 9k salinity 25...27 Sens 6...7 it will reduce the foil detectable range by 80...90 percent compared to salt OFF for the same settings

Other notes from Aaron:
Coin VDI’s lower 12khz...quarters (20-21), copper cents (17-19), nickels (5-7)
Found 3 gram gold earring in 18khz 2 weeks ago, that’s a big piece of gold though.
Still haven’t found a deep coin...yet.
Deepest target was a 12” pulltab, yes disappointed, sounded pretty darn good though.
Unit is VERY stable, running between 8-7 w no (apparent) EMI
[Later note: Using Disc mode only.]

Badger in NH [PM]
Re: ON THE HORIZON = MDT-8000 New
July 07, 2019 05:42PM

Registered: 8 years ago
Posts: 631

Summer ocean beach season is just getting underway here. This morning I did my first actual wet sand hunt since buying the machine back in January.

I didn't find any gold but I did do some depth tests just to re-affirm the superior performance of the MDT over the Equinox on the wet sand. This time I had a friend using his Equinox 800 so I didn't have to go back and forth using two machines.

Targets were a medium sized mans 14k gold ring and a silver Washington quarter. For accuracy, the targets were attached to fabric tape measures in a way that allowed them to stay flat and not be on edge.

Results were the same as my original tests.

Gold ring - MDT 13" - EQX 10".

Silver quarter - MDT 13" - EQX 9".

I was very pleased with this. I tried all the frequencies and they all sounded the same and seemed to get the same depth which was strange. Performance differences due to frequency must be extremely subtle.

I've found that GB and SB settings don't really matter a whole lot on my beaches. I can set the GB anywhere from 550 to 650 and it it will be quiet. I just leave it at 600. I will still play with the settings occasionally but I don't think it makes much difference.

I keep SB at 25 all the time and it's perfectly stable no matter what beach I go to.

I went through a lot of frustration in the beginning and wasted a lot of time worrying about GB and SB thinking that the detector was more difficult than it actually is. I'm sure beaches in other parts of the world require a lot of precise adjustment and fine tuning to keep the machine quiet but around here, the MDT is basically a turn on and go, set it and forget it detector.

It has no depth advantage in areas of hot rocks on our beaches which is unfortunate. I doubt there is any way to remedy that, but once it gets away from the rocks and onto the wet sand, the depth is amazing.

I hunt in all metal most of the time which gives the best response to targets. The visual target ID is very accurate. The numbers bounce around on the deeper targets but I can usually tell if it's ferrous or non-ferrous.

from NASA-Tom:
Peter. Wow. You DO have bad dirt!
Yes..... your threshold-depth (which is primarily determined by your mineralization/bad dirt)…….. is what is causing the 2nd tone (in Mix Mode) to drop out. This is very typical of extra deep targets.
The neat thing about the MDT is..… at least it DOES have other Modes/options to additionally test..... to see if it helps even further.....with bad dirt.

The orange/red O-ring is like a rubber band. It stretches over the male threads....that you screw the battery cap onto.

From forum user cdv:
Tried something different last night, hunted in 6.4 KHz (Sense 8, Threshold 0, SB 34). Found my first Palladium band (with the MDT), came in as a 10/11 for a TID, thought I was digging a corroded penny....glad I kept digging.

More from NASA-Tom:
Dimitar & I have toyed with different coil size options. The thing is..… from a marketing standpoint..… different coils would 'sell'. But …… from a engineering standpoint..… the gains (with a larger coil)…… would hardly be appreciable. (((Since we think like engineers..… guess what 'wins-out')))!!!
We do toy with the idea of a: High-Gain coil. Expensive/difficult to build!!!

Yes..... I DO sell the Tarsacci MDT-8000. The cost is $1539.00..... which includes taxes & U.S.A. shipping.
No.....you do not have to be in any special 'club' to acquire one. Simply: contact me.
(Prompted to make this post...recently due to: 4 PM's and 2 e-mails).

Seth..…... I may have implied/misled folks ….. the Tarsacci is for hunting wet-salt with black sand..... only. This is not true. Yes, it is the trump-card in this environment (even over the CTX, CZ, Excal, EQX)…….. but, it has plenty of other applications …. as well. It is not a 'niche' detector. It is indeed a general purpose unit. While it is not quite (specifically) a "coins-only" hunter...…. it bodes very well as a coins hunter. It also has a ton of audibly conveyable intel for relic hunting. It performs very well in carpets of nails; yet, there may be a few other units that perform slightly better in carpets of nails. True; when mineralization starts to climb...….. the performance of the Tarsacci also starts to climb...… as compared to other units.

NASA-Tom [PM]
Re: ON THE HORIZON = MDT-8000 New
November 05, 2019 01:05PM

Registered: 13 years ago
Posts: 8,446

Magus...……. let me give just a few basic tips:
Start with: 9Khz
Sensitivity: 7
Thresh: -2
Mode of your choice; however, All Metal is easier to start with/learn
Black Sand: Off
Sounds like you understand Ground Balance.
SALT Balance: If you are on 9Khz...… start with a Salt Balance of '29'. This should be close to wet-salt balance. A good salt balance is achieved by bobbing the coil up-and-down on the wet-salt...… and adjusting the Salt number until you hear a 'alternating' tone. If the tone is only one-tone..... you need to move the salt balance number (up or down)….. until you hear a alternating tone.

Once your unit is Ground Balanced...….. and Salt Balanced...…….. I think you will really like the 'new' performance. . . . . especially when compared to other beach units.
FOR THE RECORD:
(((On my beaches)))
Salt Balance numbers are as follows:
18-Khz = 26
12-Khz = 27
9-Khz = 29
6-Khz = 36
Even though these are Florida Salt Balance numbers...….. they should be fairly close to what the rest of the World presents.

For those of whom own/have a MDT...…. you may want to know the following data:
I had a fairly stunning day at the beach (wet-slope) today. In a nutshell...…. I found two gold rings. One man's wedding band (10K). One woman's wedding band(14K). (About 70-yards apart from each other). 12Khz, Black Sand 'off'.....all day today. Sens '9' & Thresh '0'. Both rings were beyond 14" deep. On each ring...… I could drop Sens to '8' and still detect either ring. With Sens '7'..... I would have (probably) missed these rings...… in the wild.
BUT (what you need to know is)….. when I increased Thresh to (-1)….. both rings were undetectable.
SEVERAL more targets on the beach today...… presented the exact same resultant.
I'm not sure if I was hunting behind someone today...…. as ……. I did not see any other detectorist. OR...….. because nearly all targets were deep.,.,.,.,., as if to be residing on somewhat of a 'shelf' at approx. 15" deep.

In any regard...…….. this very distinct multi-repeatable phenomenon is worthy of mention (and documenting). ***[From NASA-Tom on 12/19/2019]***

All-Metal Mode.
No target did a ID "lock-on"; yet/but...… most numbers were non-ferrous. Some 'burps' of ferrous...….. which is a perfect indicator/tell-tale of a threshold-deep target.
I never deviated from 12Khz.
Salt Balance = 30 (Usually it's '29' for 12Khz...….. but was '30' all day yesterday).
I could see I was in a long trough/cut.
NOTHING (no targets) were found shallow. All targets were deep or extremely deep. (((Makes me wonder: how many targets were even deeper.....and out-of-range))).

Now today...…. on 12Khz...…….. Salt Balance was right back on '27'...… the very original Salt Balance that I have experienced for the first 18-months of salt beach hunting. The past few weeks were '29'...… and yesterday was '30'. (Grnd Bal still remains at 600).

Carolina...….. I have found that gold is even less likely to "false-to-iron" when it is at threshold depth; BUT...…. it still may show a few bounces into the iron ID range. . . . . so...…… beware! Zinc Cents are my worst offenders ….. as far as ID 'bounce' is concerned.....,,,,,,, especially at depth. Corroded Zinc Cents will present the greatest 'ID bounce' into the iron range; yet, there's still more non-ferrous ID's...…... than (compared to): ….. bounces into the iron ID range. I too..... have dug Nickels in the 17" to 18" range. . . . . yet, somewhat inconsistently; hence, my hesitation to report it. So far...…. it seems to me..... it is most likely to occur when I am near the waters edge. (My AquaStar-II will -not quite- do this).

Dew...…… Dimitar REALLY pushes "30-minutes" with that IP68 rating...…. which is indeed with the control box at 5-feet deep. So far...….. I have hunted (for many consecutive hours) in the water..... at nearly neck-deep levels...…. with the control head submerged continuously...… at about 2-feet deep.,.,.,.,.,.,.,.,. and have zero problems. (((You must be a diver..... in order for the control head to be 5-feet deep))).

Daniel TN...… I'm still really curious as to 'how well' the MDT will do inland...…. in your bad dirt (just shy of Culpeper dirt mineralization levels)….. with some skillset. (((There's a (large) reason 'why'))). The two additional 'tools' on the MDT (((the Black Sand & Salt Balance))) are there for a reason! I just wished I knew the EXACT settings for the MDT in your EXACT dirt conditions...…….. so as to 'save you the time'...….. and you could be at peak-performance ….. instantly. Because: Without the correct combination …… the MDT will simply be a 'average' detector. These two features...….(that no other modern detector has)……in concert with proper Grnd Balance...……. is the very 'key' to unlocking doors. . . . . that no other detector can. (Except for GPX Pulse Induction).

****** End of Selected MDT 8000 Usage Notes through December 23, 2019 ******

****** The next page begins later additions, both from dankowskidetectors.com and other sources. ******

Following additions are from December 28, 2019

Tennessee Sharpshooter made a video that showed the following air test ID numbers for "good" targets:

18KHz	*12KHz*	*9KHz*	*6.4KHz*	*Good Target*
5-6	5-6	4-5	4	small, lady's gold wedding band
6	6	6-7	5-7	US buffalo nickel
9	7	7-8	6	large man's 14K gold ring
14-15	11-12	13	11-12	US Indian head penny, late date
15	13-14	14-15	14	US half dime
17	16-17	17	16	US wheat penny
18	17	17	17	US mercury dime
25	24	22	22	US silver quarter
26	26	25	23-24	US silver half dollar
26	27	27	25	US silver dollar

In another video, he air tested some common trash items in 12 KHz only and got these ID numbers:

12KHz	*Trash Target*
6	pulltab ring, no beavertail; also rolled beavertail
9-10	Yoohoo drink lid
10	square tab
10-11	old pull ring
12-13	Pepsi twist cap, smashed some; smashed aluminum twist lid
13	cola top, smashed
18-20	steel bottle cap, slightly rusty
19-20	steel bottle cap
23-26	steel bottle cap, very rusty

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Following additions are from January 5, 2020

From Aaron on the dankowskidetectors.com discussion forum:

Here is my dirt hunting notes I was keeping on my iPhone last summer/fall w the TARSACCI, winter just started so I won't be using it till spring, though we're in a warming trend we'll see if I can find some time this week. I did have a chance to take this to the lake a couple of times, probably for 20hrs, I prefer the EQX though for shallow water. However I prefer the TARSACCI in the park as I as digging less small foil as per Dimitars settings.
I'd love to be able use the TARSACCI on the salt beach some day.

#TARSACCI MDT 8000#
Notes from Dimitar

#Trouble w small iron#
try ground balancing over it, may or may not work
Invoke Salinity function in iron, may help
Reduce DISC to -15 to -20 in iron
Try 12khz
Lower sensitivity in high trash

#Regarding Discing Out Small Flat Foil#
Try 9k salinity 25...27 Sens 6...7 it will reduce the foil detectable range by 80...90 percent compared to salt OFF for the same settings

OBSERVATIONS @ 50+hrs

Used the MDT 8000 for 3hrs in 90 degree heat

Rusty bottle caps, solid hits at 8-10+, 27-29+, w no negative numbers, however sound is blan, metallic, not sweet. Whipping coil over target immediately reveals to be iron, not getting fooled as much

Invoked Salinity function, seemed to help in smaller iron
Reduced DISC to -15 to -20 in iron
Used 12khz, not digging as much tiny foil anymore, (9khz is even better) haven't found any small gold either though...

Coin VDI's lower 12khz...quarters (20-21), copper cents (17-19), nickels (5-7)

Found 3 gram gold earring in 18khz 2 weeks ago, that's a big piece of gold though.

Still haven't found a deep coin...yet. Deepest target was a 12" pulltab, disappointed, sounded pretty darn good though.

end of Aaron's notes.
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From NASA-Tom to Magus on the dankowskidetectors.com discussion forum:

I can see that you were running the EQX at peak performance. (You had 'exactly/precisely' figured it out)! The MDT's performance settings were slightly under-par. I'm not so much concerned about your Ground Balance...….. but/rather, I'm a bit concerned about your Salt Balance. I could not see the control panel that well in the video. In a nutshell...… you may want to try 9Khz, Sens '9'.... Thresh '0', All Metal Mode (this still retains VDI ID capabilities) and Black Sand 'off'. Then get a good Salt Balance whilst in these settings. (((By the looks of your beach/sand..... you can probably put Ground Balance on '600'..... and will have minimal issues/problems))). With these settings..... you will see that you need a fairly steady sweep...… and this will present minimal falsing. . . . . (and substantial performance gains).

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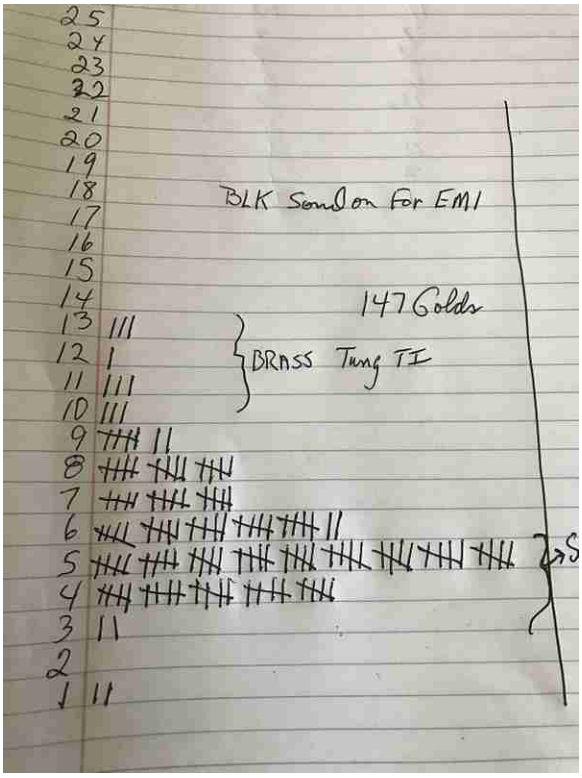
From dewcon4414 regarding the ID lists above .
Thanks..... wow that had to be a LOT of cut and paste work. The TIDs were very good to have. Let me say thou.... those numbers are on a solid target. Ive found the digits on trash seems to UPSCALE..... meaning that pull tab at 6 can come in in the low 20s when really deep. Did ya notice where a lot of the iron targets were going? Thats why i use a notch of 28. It can affect the response of targets in the 27 range as well. So when i cant see the screen and am using AM..... when switched to disc i get a much slower high ping or NO ping at all. Some of that wrap around i believe is reduced by being in the salt water..... so i have a high confidence level im not missing a lot of gold. Ive not really noticed gold upscaling.... beyond the range im watching..... 1 to 12. That just below a penny which for me is 13. But those pennies .... wow can be 9 to 18 sometimes. When i first started out i ran several pieces of gold over the coil in 9khz.... this is what i got. All various weight and K..... the very low digits (3 and 1) were of small crosses and chains. Notice i should have said how many of those TI and Tung were in those upper digits..... because i believe there might have been only 1 ring above the digit 10. [Photo follows]



Tarsacci MDT 8000 ID Numbers for 147 Gold Rings at 9KHz [from dewcon4414]

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****** End of Selected MDT 8000 Usage Notes through January 5, 2020 ******