

New Analysis of All Seas Water Parameters for All May Months from 2005-2017 using Real Time Data

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Abstract

In this research article we employed authentic data of salinity and temperatures, for all May months fluctuate from 2005 to 2017, this information are taken from National centers for environmental information also known as National oceanic and atmospheric administration, in earlier period scientists used information as a hypothesis, to come across marine water parameters, which is not capable in real life, because the oceanic water parameters, tainted with each depth, latitudes and longitudes. At this log, the data are reachable at each depth, latitudes and longitudes of marine, in statistical and in analyzed information forms. In this research article, we acknowledged average conductivity, average permittivity, average salinity and average temperatures for all May months from 2005 to 2017, from outer surface of marine to deepness of 5500 m via this information, from National centers for environmental information. We employ Mat lab as a simulation apparatus to encounter, these sea water parameters, from this authentic data. We employ 2 to 40 GHz frequency of electromagnetic waves to discern these marine water parameters, we also employ Ellison et al. Model 1998 and Debye interpolation function formula to identify these marine water parameters, by employing concrete time data from National centers for environmental information.

Keywords: average permittivity, average salinity, average temperature, average conductivity, ppt. s/m, F/m.

Introduction:

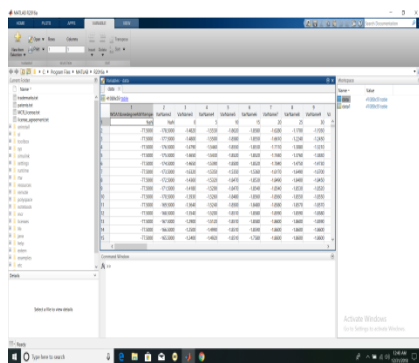
Marine water comprises non-living and natural compounds; natural compounds have no effect on marine water parameters, because natural compounds comprises carbon, while non-living compounds have no component of carbons, it's the minerals dissolved in marine water, the root of non-living compounds are volcanoes, drizzle, which distorted its concentrations in sea water. The oceanic water parameters are related with these inorganic

compound's, if the non-living compounds concentration are high, the marine water parameters i.e. average conductivity, average permittivity, average salinity and average temperatures are high, and if the non-living compound's concentration are low, the marine water parameters i.e. average conductivity, average permittivity, average salinity and average temperatures are slight. Which we confer underneath, we employ Debye model interpolation function as a reference model to identify the ocean water parameters, in olden time's scientist employed Debye model for static data and static frequency, to determine the marine water parameters, which is not capable in real world.

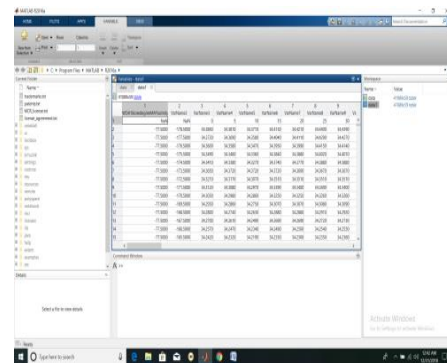
1. Real time data of salinity and temperatures of ocean:

The valid data are taken from National centers for environmental information in form of salinity and temperatures, from diverse depths, latitudes, longitudes from all over the marine of the world, in form of statistical mean data and analyzed mean data as showing below.

a) Analyzed mean data

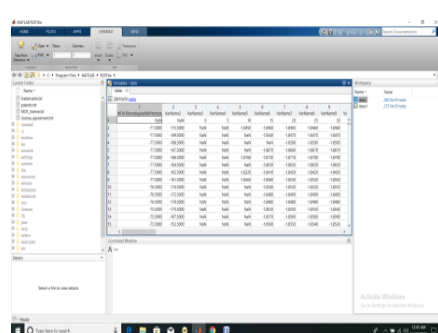


a) Fig 1 Temperature data

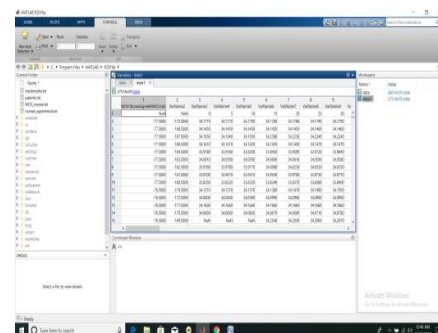


b) Fig 2 Salinity data

b) Statistical mean data:



a) Fig 3 Temperature data



b) Fig 4 Salinity data

3. Mean salinity of sea water :

The salinity means the minerals solve in oceanic water, it is measured in parts per thousand known by (ppt.) the maximum salinity concentration comprises sodium

chlorides, the additional minerals are calcium chlorides, magnesium chlorides, magnesium sulfate, and sodium bicarbonates. The foundation of salinity are volcanoes, they set free different types of chemical gases, and form dissimilar types of minerals, which pour to naval water and makeup inorganic compounds, the other source is rain, the rain falls on salty hills and different minerals flows to oceanic water. The average salinity means that we took entire numbers of data points, from oceanic water and partition by full number of data points. [1,2,3].

Simulation result of, average salinity, via Analyzed mean data and statistical mean data of ocean water.

3. a) Average salinity using Analyzed mean data of oceanic water:

We take salinity genuine data of naval water from exterior of ocean to depth of 5500 m from National centers for environmental information, and employed Mat lab simulation code to generate diverse results as showing in fig 5, fig 6, fig 7, and fig 8. This genuine time data are obtainable in array shapes 41089*2, it identifies that it's the information points of minerals, all over the earth of different seas, from exterior of naval to deepness of 5500 m; it is just for May months from 2005 to 2017. In fig 5 from 2 to 10 ($^{\circ}\text{C}$), the minerals' concentration varies from 29.6 to 33.6 ppt. Approximately, and it shows the deepness and center of oceanic water, it shows that at this location the non-living compounds are in lowly quantity, and temperatures of oceanic water are also slightest at deepness of oceanic water, the inorganic compounds' concentration are a function of temperatures of oceanic water, so as we go away further from depth and middle of marine to exterior of marine water, the non-living compounds concentration and temperatures of oceanic water elevated as in fig 5 from 10 to 14 ($^{\circ}\text{C}$), approximately, the inorganic compounds concentrations vary from 33.6 to 34.4 ppt. Approximately, The inorganic compounds concentrations are also a function of oceanic water average conductivity, as exposed in fig 6 from 29.7 to 33 ppt. Approximately, The average conductivity ranges from 2.5 to 3.3 s/m, it identifies the deepness and center of oceanic water, and as we go away from deepness and center of naval to outside of marine water as shown in fig 6 from 33 to 34.6 ppt. Approximately, the oceanic water average conductivity vary from 3.3 to 4.3 s/m approximately, it means at these points the oceanic water temperatures and inorganic compounds concentration are lofty. The fig 7 also shows that the oceanic water inorganic compounds concentration are a function of oceanic water permittivity real part, the real part shows that how much energy store by oceanic water, the fig 7 illustrates that from 29.7 to 33 ppt. Approximately, inorganic compounds concentrations the permittivity real part have the least value of 17 to 22.9 F/m approximately, and it shows the deepness and center of oceanic water, at this place the oceanic water temperatures, inorganic compounds concentrations and conductivity of oceanic water are slightest, but as we go from deepness and center of oceanic water, to outside of oceanic water, the permittivity real part and inorganic compounds concentrations increases linearly in fig 7 from 33 to 34.6 ppt. The real part of permittivity ranges from 22.9 to 27.2 F/m approximately, It means that the energy stored by oceanic water are extreme at this position, while the oceanic water temperatures, sea water inorganic compounds concentrations and conductivity of oceanic water are also extreme, and it's the outer surface of ocean water. The fig 8 shows the relationship of inorganic compounds concentrations and imaginary part of permittivity, in fig 8 from 29.7 to 33 ppt. Approximately, Inorganic compounds

concentrations, the imaginary part of permittivity vary from 9.6 to 12.8 F/m approximately, it shows the deepness and center of oceanic water, it also shows that at this place the electric field set free the energy in the smallest amount, but as we shift further from deepness and center of sea to exterior of sea water as in fig 8, from 33 to 34.6 ppt. Approximately, inorganic compounds concentrations, the energy set free by electric field elevated from 12.8 to 17.6 F/m. It also shows that energy liberates by electric field are inversely proportional to inorganic compounds concentrations, temperatures of oceanic water, conductivity of oceanic water.

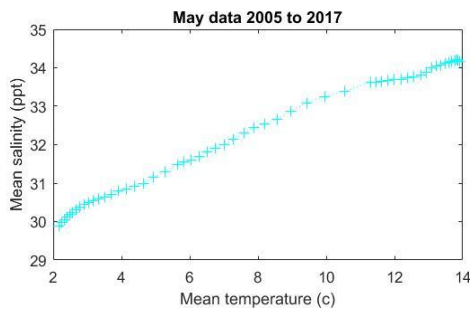


Fig 5 Mean salinity vs. mean temperature

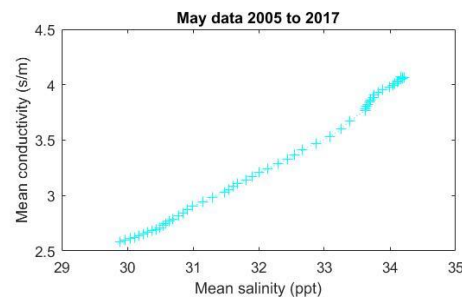


Fig 6 Mean salinity vs. mean conductivity

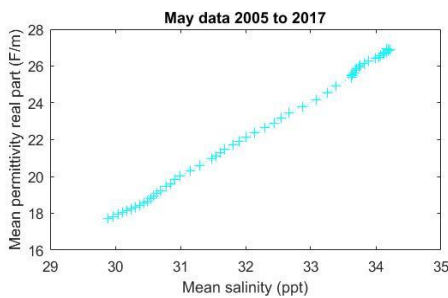


Fig 7 Mean salinity vs. Mean permittivity real part

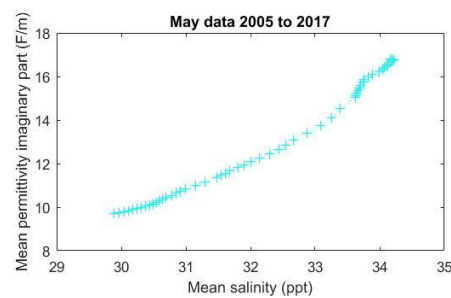


Fig 8 Mean salinity vs. mean permittivity Imaginary part

3. b) Mean salinity using Statistical mean data of sea water:

The statistical mean data means inspect the data statistically, we took the salinity data array of 27547*59 from National centers for environmental information, and used Mat lab simulation code to make different outcome of salinity versus different parameters of oceanic water as revealed in fig 9, fig 10, fig 11, fig 12. The fig 9 shows that as we move from deepness and center of oceanic to outer surface of oceanic as in fig 9 from temperature 2 to 10 ($^{\circ}\text{C}$), the inorganic compounds concentrations vary from 28 to 33.6 ppt. But as we shift further from deepness and center of oceanic to outer surface of oceanic water as in fig 9 from 10 to 18 ($^{\circ}\text{C}$), there are a slight increase in inorganic compounds concentrations and it approximately, ranges from 33.6 to 35.1 ppt. It means that the salinity concentrations elevated to some extent and at 18($^{\circ}\text{C}$), approximately, it drops 28.7 ppt. Approximately its means at this place the inorganic compounds' concentration minimize, it's a reality that the oceanic water concentrations are not equal on the whole surface of oceanic water, in earlier period the scientists thinking that the oceanic water temperatures, conductivity and salinity are alike on every seaplane of oceanic water. In fig 10 the inorganic compounds concentrations

fluctuate linearly with oceanic water conductivity, from 28 to 33 ppt. The oceanic water average conductivity vary from 2.5 to 3.2 s/m, it shows the deepness and center of marine water, and at deepness and center of oceanic water, the inorganic compounds' concentration, temperatures of oceanic water are in the smallest amount, as we shift further from 33 to 34.2 ppt. Salinity concentrations, the average conductivity of oceanic water ranges from 3.2 to 4.5 s/m approximately, but at 34.2 ppt. Salinity concentrations, it falls to 3.7.5 s/m average conductivity, it means at this place some surface of oceanic water have lowly amounted of inorganic compounds concentrations because, the oceanic water surfaces have not normal inorganic compounds concentrations and temperatures. The average conductivity are also a function of inorganic compounds concentrations and temperatures of oceanic water. The inorganic compounds concentrations are also a function of permittivity real part as exposed in fig 11 below from 28 to 33 ppt. Of inorganic compounds concentrations, the real part of permittivity vary from 15.9 to 23.5 F/m its shows the deepness and center of oceanic water, and the energy stored in electric field in oceanic water are lowly at this location of marine water, and as we shift further towards, the outside of ocean water the inorganic compounds' concentration vary from 33 to 34.6 ppt. And the permittivity real part vary from 23.5 to 29.8 F/m approximately, and it's the exterior of sea water and it shows the energy liberate by electric field are maximum. The salinity concentrations are also affects the permittivity imaginary part as exposed in fig 12 below from 28 to 33 ppt. Of salinity concentrations it has the least value of 8.4 to 12. F/m approximately, it shows the deepness and center of oceanic water, so the energy release at this spot are in the lowest amount, as we go further from deepness of ocean and center, to outer surface of oceanic water, the energy set free by electric field are superior as shown in fig 12 from 33 to 34.6 ppt. The energy liberate are from 12.1 to 18.6 F/m approximately, at this place, it also go down to 15.4 F/m its due to variations of oceanic water salinity concentrations, temperatures of oceanic water variations and conductivity of oceanic water variations, because oceanic water exterior are not normal as we have already mentioned on top.

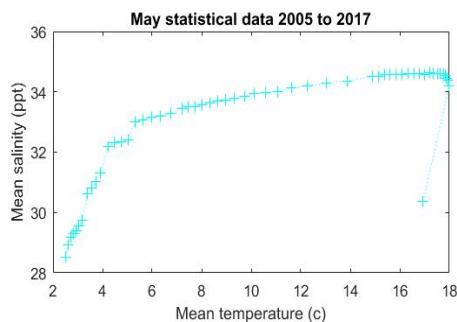


Fig 9 Mean salinity vs. mean temperature
conductivity

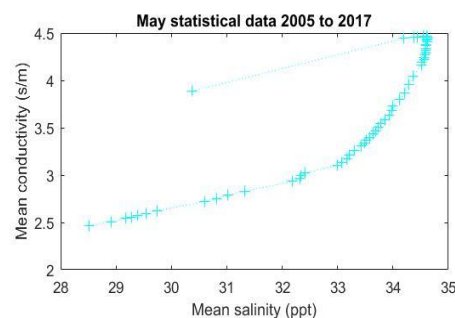


Fig 10 Mean salinity vs. mean

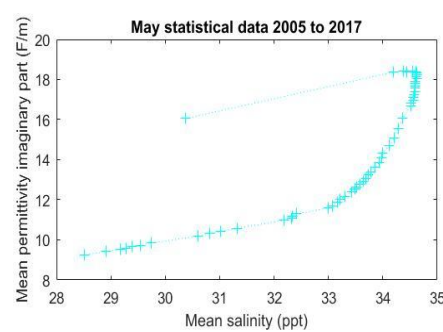
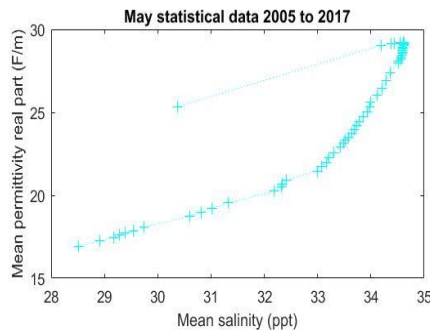


Fig 11 Mean salinity vs. mean permittivity real part Fig 12 Mean salinity vs. mean permittivity Imaginary part

4. Mean temperature of sea water:

The temperature shows the oceanic water warmness or frigidity, it is deliberate in Celsius in system international shown by ($^{\circ}\text{C}$). The naval water temperatures vary from -2 to 30, and at unlike surfaces of oceanic water it varies. So the average temperature stands for the whole number of data points of oceanic water partition by the whole number. We took data points 41089*59 from National centers for environmental information, and employ Mat lab simulation code to produce different fallout of temperatures versus different parameters of marine water as shown in fig 13, fig 14, fig 15, and fig 16. [4,5,6,7].

Simulation outcome of average temperature using Analyzed mean data and statistical data of sea water.

4 a) Mean temperature using Analyzed mean data of sea water:

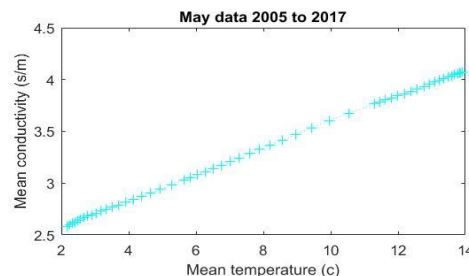
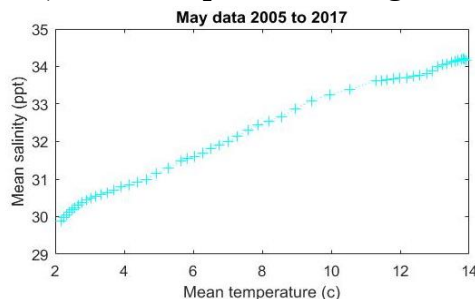


Fig 13 Mean temperature vs. mean salinity Fig 14 Mean temperature vs. Mean conductivity

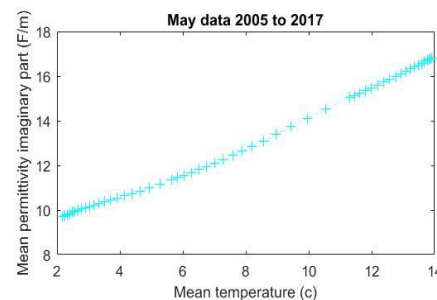
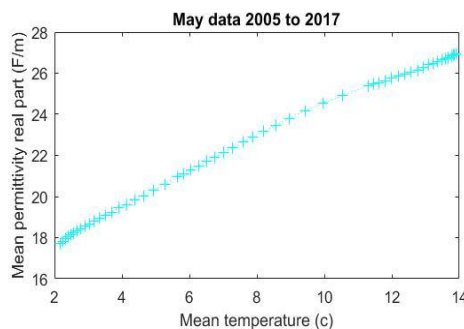


Fig 15 Mean temperature vs. mean permittivity real part Fig 16 Mean temperature vs. mean Imaginary part

The average temperatures are also depended on inorganic compounds concentrations, if the inorganic compounds concentrations are maximum the average temperatures of oceanic water are also uppermost, and if the average temperatures of oceanic water are slightest the inorganic compounds concentrations are also slightest, as exposed in fig 13 from 2 to 10 ($^{\circ}\text{C}$), the inorganic compounds concentrations varies from 29.8 to 33.3 ppt. Approximately, and it is the deepness and centre of oceanic water, but as the average temperatures of oceanic water increases from 10 to 14 ($^{\circ}\text{C}$), the inorganic compounds concentrations vary from 33.3 to 34.4 ppt. It shows that as we travel from deepness and centre of oceanic to exterior of oceanic water, the salinity concentrations ratio increases. The mean temperatures are also a function of average conductivity as exposed in fig 14 from 2 to 10 ($^{\circ}\text{C}$), the mean conductivity ranges from 2.5 to 3.7 s/m approximately and it's the deepness and centre of oceanic water, and as the mean temperature increases from 10 to 14 ($^{\circ}\text{C}$), the average conductivity of oceanic water vary from 3.7 to 4.3 s/m, approximately, and it shows that we are going from deepness and centre of ocean to outside of oceanic water, at exterior of oceanic water, the average conductivity of oceanic water are extreme and temperatures and inorganic compounds concentrations are also uppermost as we identify inorganic compounds concentrations and temperatures of oceanic are the function of oceanic water average conductivity. The mean temperatures are also dependent on permittivity real part as revealed in fig 15 from 2 to 10 ($^{\circ}\text{C}$), the real part of permittivity vary from 17.9 to 24.9 F/m approximately as showing in fig 15, it shows the deepness and centre of oceanic water at this place, the energy stored by electric field are slightest, because at this location the oceanic water average temperatures, inorganic compounds concentrations and oceanic water average conductivity are slightest as we move further from deepness and centre of oceanic to exterior of oceanic water, the mean temperature are high from 10 to 14 ($^{\circ}\text{C}$), which yield to lofty the oceanic water permittivity real part as revealed in fig 15, the real part of permittivity elevated from 24.9 to 26.7 F/m approximately. So the average temperature are also affected the oceanic water permittivity imaginary part as showing in fig 16, from 2 to 10 ($^{\circ}\text{C}$), it has the slightest value of 9.9 to 13.9 F/m approximately, and from 10 to 14 ($^{\circ}\text{C}$), it has an uppermost value of 13.9 to 16.8 F/m approximately, the imaginary part shows the electric field energy release at deepness, they are slightest at deepness of oceanic water and greatest at exterior of oceanic water as exposed in fig 16 above

4. b) Mean temperature using Statistical mean data of sea water:

This evaluation shows the average temperature with different oceanic water parameters statistically as revealed in below figures

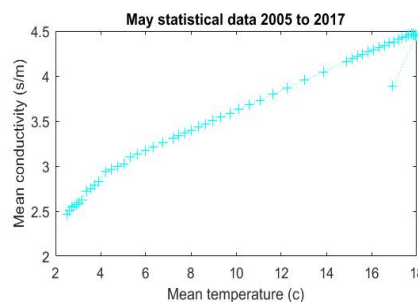
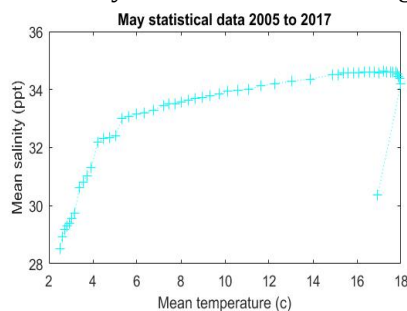


Fig 17 Mean temperature vs. Mean salinity Fig 18 Mean temperature vs. mean conductivity

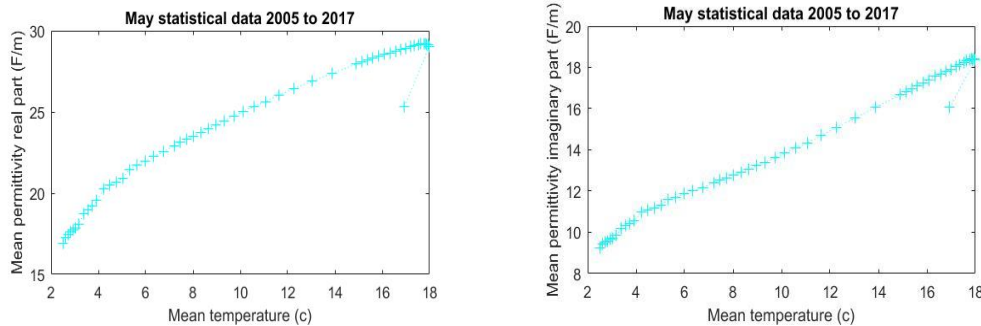


Fig 19 Mean temperature vs. mean permittivity real part Fig 20 Mean temperature vs. Mean permittivity imaginary part

The average temperatures from 2 to 10 ($^{\circ}\text{C}$), results in 28 to 33.9 ppt. Inorganic compounds concentrations approximately, which is the deepness and centre of oceanic water, but as the average temperature increases from 10 to 18 ($^{\circ}\text{C}$), approximately, the inorganic compounds concentrations increases from 33.9 to 34.9 ppt. This shows that we are going toward the outside of oceanic water as revealed in fig 17 above. The mean temperature are also affected with oceanic water average conductivity as exposed in above fig 18 from 2 to 10 ($^{\circ}\text{C}$), the oceanic water average conductivity vary from 2.4 to 3.6 s/m approximately, it's the deepness and centre of oceanic water as we move from deepness and centre of oceanic water to exterior of oceanic water, the oceanic water average conductivity altered from 3.6 to 4.5 s/m approximately, at average temperature range of 10 to 18 ($^{\circ}\text{C}$), and it's the outside of oceanic water at this location, the inorganic compounds concentrations and average temperatures of oceanic water are maximum, and average conductivity are also a function of inorganic compound concentrations and average temperatures of oceanic water. The average temperature also affects the oceanic water permittivity real part as exposed in fig 19 above, from temperatures range of 2 to 10 ($^{\circ}\text{C}$), it has the slightest value of 16.1 to 24.9 F/m approximately, and it's the deepness and centre of oceanic water, while at average temperature 10 to 18 ($^{\circ}\text{C}$), it has an uppermost value of 24.9 to 29.8 F/m approximately, which is the exterior of oceanic water at this phase the oceanic water parameters are at uppermost level. So the real part of permittivity shows us the energy wrapped up by electric field. So the mean temperatures are also affects the imaginary part of oceanic water too as revealed in fig 20 above, from 2 to 10 ($^{\circ}\text{C}$), it has the slightest value of 8.6 to 13.6 F/m approximately, and it's the deepness and centre of oceanic water at this stage the oceanic water parameters have the slightest values, as we shift from deepness and centre of oceanic water, to exterior of oceanic water, the mean temperature vary from 10 to 18 ($^{\circ}\text{C}$), which alter the imaginary part of oceanic water permittivity from 13.6 to 18 F/m approximately, as revealed in above fig 20 the imaginary part of oceanic water permittivity shows the energy set free by electric field.

5. Mean Conductivity of sea water:

The average conductivity of oceanic water permits the current to flow through oceanic water, it is highest at the exterior of oceanic water, due to copious amount of oceanic water inorganic compounds concentrations and oceanic water uppermost average temperatures, while it is slightest at the deepness of oceanic water, it is deliberated in

Siemens per meter (s/m) in system international, and its represented by a Greek word sigma “ σ “. [8,9,10].

Mathematically average conductivity

$$\sigma(s, t) = k(t) + l(t) s \quad (1)$$

$$k(t) = 0.086374 + 0.030606t - 0.0004121t^2$$

$$l(t) = 0.077454 + 0.001687t + 0.00001937t^2$$

Where in equation (1) “ $k(t)$ ” is coefficient of time, and “ $l(t)$ ” are coefficient of inorganic compounds concentrations..

Simulation fallout of mean conductivity by employing Analyzed Mean data and statistical Mean data of oceanic water

5 a) Mean conductivity using Analyzed mean data of sea water:

In this part we compared the mean conductivity versus different oceanic water parameters as revealed in fig 21, fig 22, fig 23, and fig 24 as exposed below

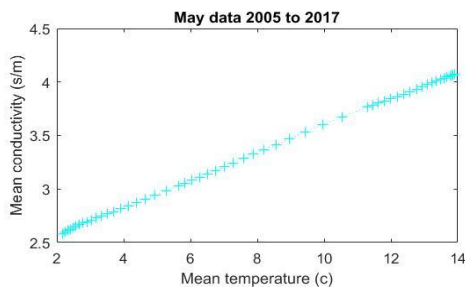


Fig 21 Mean temperature vs. mean conductivity

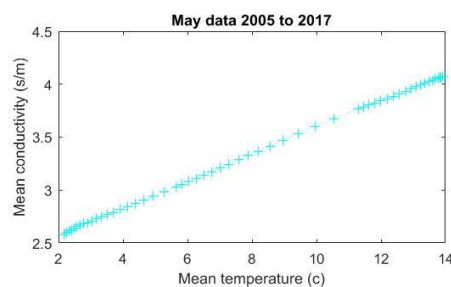


Fig 22 Mean salinity vs. mean conductivity

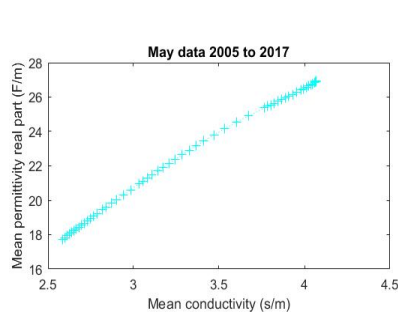


Fig 23 Mean conductivity vs. mean permittivity real part

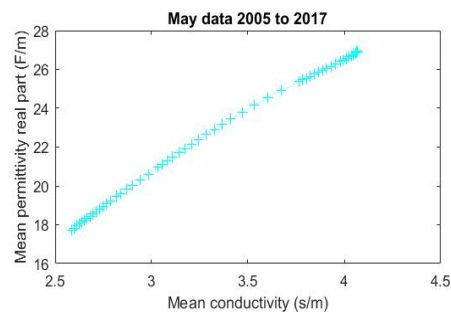


Fig 24 Mean conductivity vs. mean Imaginary part

The mean conductivity are a function of average temperatures as exposed in fig 21 from 2 to 10 ($^{\circ}\text{C}$), the average conductivity ranges from 2.5 to 3.6 s/m approximately, as exposed in fig 21 above and it's the deepness and centre of oceanic water, at this phase the oceanic water average temperatures and oceanic water inorganic compounds concentrations are lowly, but as we shift from deepness of oceanic water, to exterior of oceanic water at mean temperature of 10 to 14 ($^{\circ}\text{C}$), approximately, the oceanic water mean conductivity vary from 3.6 to 4.5 s/m approximately, and it's the exterior of oceanic water, and at this time, the oceanic water average temperatures and oceanic water inorganic compounds concentrations are extreme. The mean conductivity are also a function of average salinity as exposed in fig 22 above, from 29.8 to 33 ppt. Salinity concentrations, the average

conductivity has the least value of 2.4 to 3.5s/m approximately as revealed in above fig 22, and it's the deepness and centre of oceanic water, as we identify at this step the inorganic compounds concentrations and average temperatures of oceanic water, have the slightest values, so the mean conductivity are also the function of oceanic water inorganic compounds concentrations and average temperatures of oceanic water, it also affected but as we move further from deepness and centre of oceanic water, to exterior of oceanic water, the inorganic compounds concentrations tainted to its uppermost level as exposed in fig 22 above, from 33 to 34.7 ppt. The mean conductivity vary from 3.5 to 4.3 s/m approximately, as exposed in above fig 22. The mean conductivity are also affected the mean permittivity real part as revealed in fig 23, from 2.5 to 3.5 s/m average conductivity it has the least value of 17.6 to 23.8 F/m approximately, as revealed in above fig 23 and it's the deepness and centre of oceanic water, at this position the oceanic water inorganic compounds concentrations, average temperatures of oceanic water, and average conductivity of oceanic water have the slightest values, so the real part of permittivity have also the slightest values, and the energy stored by electric field have the slightest values as revealed in above fig 23. But as we shift further to outer of oceanic water, the real part of permittivity of oceanic water have uppermost values, and the mean conductivity values also changes as exposed in fig 23 from 3.5 to 4.3 s/m, it's values changes to 23.8 to 27.8 F/m approximately, and it's the outside of oceanic water, it shows that the electric field stored the energy at this location are greatest and it also shows that inorganic compounds concentrations, oceanic water temperatures and oceanic water average conductivity are also uppermost at this phase. The mean conductivity also affects the imaginary part of oceanic water permittivity as exposed in fig 24, from 2.5 to 3.5 s/m, it has the bare minimum value of 9 .7 to 13.3 F/m, and it the deepness and centre of oceanic water, at this spot, the energy set free by electric field are slightest as we go to external of oceanic water the energy set free by electric field are highest, and it's vary to 13.3 to 17.7 F/m approximately, at mean conductivity of 3.5 to 4.3 s/m, and it's the outside of oceanic water.

5. b) Mean conductivity using Statistical mean data of sea water:

In this examination, we deliberate oceanic water parameters statistically as exposed in below figures.

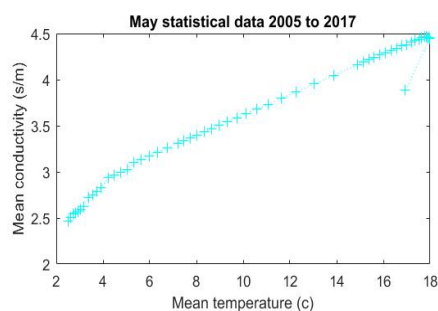


Fig 25 Mean temperature vs. mean conductivity

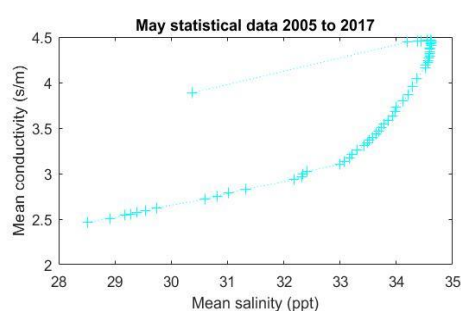


Fig 26 Mean conductivity vs. mean salinity

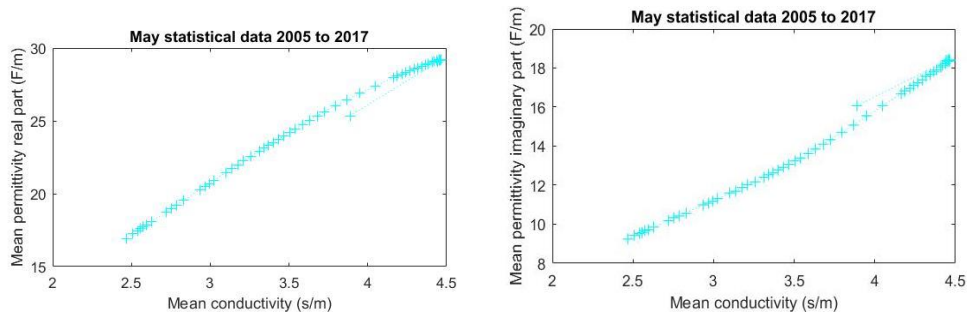


Fig 27 Mean conductivity vs. mean permittivity real part Fig 28 Mean conductivity vs. mean Permittivity imaginary part

The mean conductivity affects the mean temperatures linearly as revealed in fig 25 from 2 to 10 ($^{\circ}\text{C}$), the mean conductivity changes from 2.4 to 3.7 s/m approximately, and it's the deepness and centre of oceanic water, and as we move to toward outside of oceanic water, the average conductivity changes from 3.7 to 4.5 s/m approximately, at average temperatures range of 10 to 18 ($^{\circ}\text{C}$), as exposed in fig 25, and it's the outside of oceanic water, at outside of oceanic water the inorganic compounds concentrations and average temperatures are highest, that's why the mean conductivity are extreme as revealed in fig 25. The mean conductivity also affects the average salinity as exposed in fig 26, from 28 to 33 ppt. It has the least value of 2.4 to 3.1 s/m, and it's the deepness and centre of oceanic water and it has the highest value of 3.1 to 4.5 s/m approximately, as inorganic compounds concentrations of 33 to 34.6 ppt. As exposed in fig 26, but it drops to 4 s/m mean conductivity at 34.6 ppt. Inorganic compounds concentrations, it shows that the oceanic water inorganic compounds concentrations and mean temperatures are not normal at some surfaces of oceanic water. The mean conductivity are also affected the mean permittivity real part in this survey as exposed in fig 27, it is slightest at deepness of oceanic water as revealed in fig 27, from 2.4 to 3.5 s/m it has the lowly value of 15 to 24.9 F/m and it's the deepness and centre of oceanic water, at this stage energy stored by electric field are least and all the oceanic water parameters have the least values, and as we move from deepness of oceanic to outside of oceanic water, the energy stored by electric field increases from 24.9 to 29.8 F/m approximately, at mean conductivity from 3.5 to 4.5 s/m approximately, as exposed in fig 27 and it's the outside of oceanic water, at this point the oceanic water parameters have an extreme values. In this analysis the oceanic water mean conductivity are also affects the imaginary part of oceanic water permittivity as revealed in fig 28, at deepness of oceanic water, it has the least values from 8.5 to 13.6 F/m approximately, at mean conductivity range of 2.4 to 3.5 s/m, and it has the greatest values of 13.6 to 18.3 F/m approximately, at mean conductivity range of 3.5 to 4.4 s/m, and it's the outside of oceanic water, as exposed in fig 28, at this spot, the energy set free by electric field are extreme.

6. Mean Permittivity of sea water:

Average permittivity of oceanic water are the ability of oceanic water to accumulate energy in its electric field, in system international it's represented by Farad per meter F/m. [8,9,10,].

Mathematically

$$\varepsilon = \varepsilon_r \varepsilon_o \quad (2)$$

Wherever “ ε_r ” is the relative permittivity of a substance and “ ε_o ” is the vacuum permittivity of free space having a value of 8.85×10^{-12} F/m.

We employ Debye interpolation function to situate mean permittivity from mean conductivity, mean temperatures and average salinity via genuine time data, from National centers for environmental information in form of salinity and temperatures, and we put this information in interpolation function, and we can calculate different oceanic water parameters, the equation is exposed below.

Debye interpolation function

Mathematically

$$\varepsilon(t, s, v) = \varepsilon_\infty + \varepsilon_o - \varepsilon_\infty / (1 - j2\pi\tau v + j\sigma / 2\pi v \varepsilon^*) \quad (3)$$

Wherever in equation (3) “ ε ” is the permittivity of oceanic water, and “ $\varepsilon_\infty, \varepsilon_o$ ” are the static and frequency dielectric constants depends on average temperatures of oceanic water and salinity of oceanic water while “ σ, v ” are mean conductivity of oceanic water and angular frequency of oceanic water and “ τ, ε^* ” are the relaxation time and the permittivity of free space. We used Mat lab as a simulation apparatus and used equation (3) on genuine time data, we can evaluate the mean permittivity of oceanic water as exposed in above figures, on analyzed mean data and on statistical mean data.

7. Conclusion:

We agreed that mean conductivity and average permittivity of May months from 2005 to 2017 are the function of oceanic water inorganic compounds concentrations, and average temperatures of oceanic water, if the inorganic compounds concentrations and average temperatures of oceanic water are high, the mean conductivity and the average permittivity of oceanic water are also lofty, and if the oceanic water average temperatures and salinity concentrations are squat the mean conductivity and mean permittivity are small which we calculated in this research article.

8. Future work:

This method can also be used in the future, if we have genuine time data from National centers for environmental information reachable for more than 1500 m depths of oceanic water, for all May months, and we can simply locate oceanic water parameters.

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