Secular and Current Sea Level rise :
Tide Gauge (1.6 mm/yr) *or* SAT-Altimetric (3.2 mm/yr) – *What* is Right ?

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(a) http://www.eike-klima-energie.eu/news-cache/saekularer-und-aktueller-meeres-anstieg-pegel-16-mmjahr-oder-sat-altimeter-32-mmjahr-was-ist-richtig/ 08.07.2014
(b) http://www.kaltesonne.de/?p=19280 14. Juli 2014
(c) http://www.dagelijksestandaard.nl/2014/07/zeespiegel-stijgt-aanmerkelijk-minder-snel-dan-gedacht 11.07.2014
(d) http://notrickszone.com/2014/07/09/comprehensive-eike-review-of-sea-level-rise-shows-topexposeidonjason-results-are-inflated-faulty/ 9.7.14

Numerous analyses of tide gauge measurements at coastlines for more than 200 years as well as current gravimetric measurements from GRACE satellites always show rising sea levels by about 1.6 mm/yr. Contrary to this, measurements via satellite (TOPEX/POSEIDON/JASON), published since 1992, show twice these values with 3.2 mm/yr. This considerable discrepancy is unexplained until this very day. However, the trends are similar: rising of sea level is about linear since 100 years, there is no acceleration of rising. A signal of anthropogenic CO_2 (AGW) is detectable nowhere. All this blatantly contradicts statements and in particular alarmistic forecasts of the IPCC and some climate research institutes.

(1) Rising Sea Level at the German North Sea Coast since 10,000 years

Thanks to the great work of coastal researcher Karl-Ernst BEHRE from the Wilhelmshaven *Niedersächsisches Institut für Historische Küstenforschung NIHK [institute for historical coastal research of Lower Saxony]* we today have good knowledge of transgression and regression at the German North Sea coast since the end of the last ice age [1]. See **figure 1:**

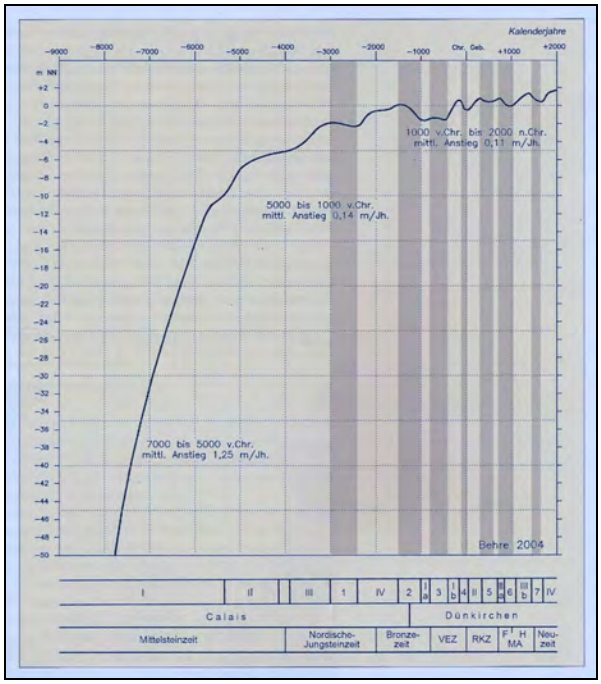


Figure 1
Sea level rise of the Southern North Sea since 10,000 years [1c, S.21]

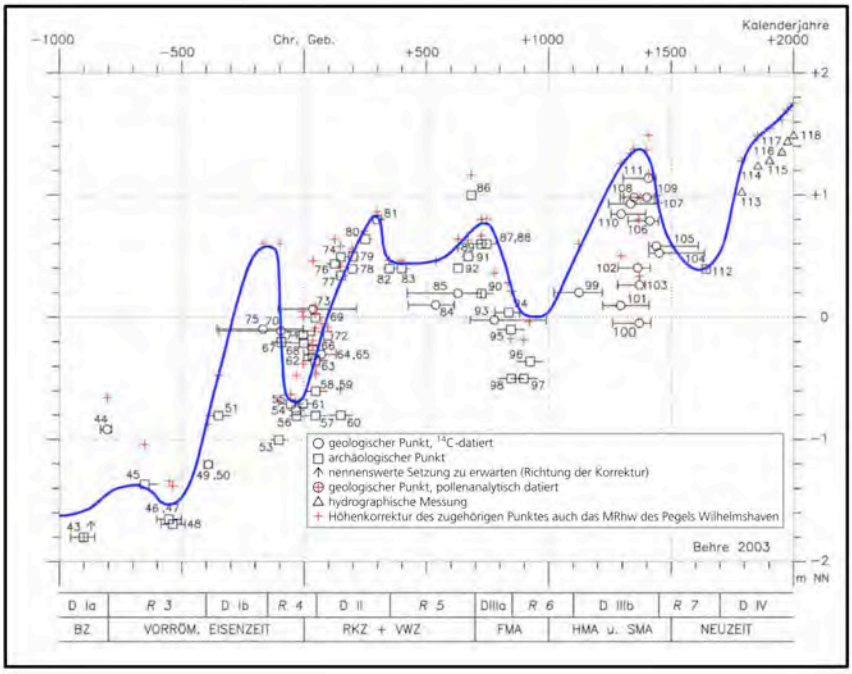


Figure 2

Sea level rise of the Southern North Sea since 3000 years

[1a, S.35]

Figures 1 and 2 show: sea level has risen by about 50 m during the last 10,000 years. The rise has slowed down more and more, if looking at the smoothed trend of the last 3000 years as well. During the last 400 years (1600-2000) there was a rise of 1.35 m (without GIA correction), during the last 100 years just 25 cm, thus a further slowdown.

Respective to the secular slowdown of sea level rise during the last centuries, other comprehensive studies [2] show similar results like BEHRE:

"The last detailed regional study was by Shennan and Woodworth (1992). They used tide gauge and geological data from sites around the North Sea to infer 20th century and late Holocene secular trends in MSL. They concluded that a systematic ***offset of 1.0 ± 0.15 mm/yr in the tide gauge trends compared to those derived from the geological data could be interpreted as the regional geocentric rate of MSL change in the 20th century****. They also constructed a sea level index to represent the coherent part of sea level variability in the region and* ***found no evidence for a statistically significant acceleration in the rates of SLR over the 20th century****. These results were in agreement with those of Woodworth (1990), who found a significant acceleration in the order of 0.4 mm/yr per century when focusing on time scales longer than a century (up to 300 years),* ***but not for the 20th century"****.*

All this in particular is due also for the German North Sea coast. This was confirmed by the *Niedersächsische Landesverband für Wasser, Küsten- und Naturschutz NLWKN [Regional association for water, coastal and nature protection of Lower Saxony]* in 2013 [3]. NLWKN-speaker Heyken stresses: *"so far, there is no sign of flooding getting worse. We measure tides* ***since 100 years****. During this time, the average high tide rose by* ***25 cm****.* ***W cannot confirm that the sea level has risen faster during the last decades****. There also is no evidence for more frequent floods".*

C o n c l u s i o n :

Rising of sea level has slowed down during millenia and as well during the last century. There is no such thing like a "CO2 climate signal" !

(2) Tide gauges as measurement of balance: coastal subsidence *and/or* sea level rise ?

Sea level changes are measured by about 10,000 tide gauges worldwide. Some of these even go back more than 200 years, the majority less than 100 years. At first, the direct readings and trends always are a measurement of balance: Rising or sinking sea level compared to rising or subsidence of coastlines. There are some reasons for the latter, in particular tectonics, volcanic activity and ice age events (*isostasy and eustasy).*

Concerning the German North Sea coast, BEHRE [1a] has worked on this as well: *The North Sea basin has been a region of subsidence since a very long time, and this subsidence is still going on today. ... "The German coast is located in the upper level of this subsidence region. For exact estimates of vertical movement, in this case one can refer to the top layer of marine sediments in the Eem Sea ... With this, you get for the region of the Deutsche Bucht [German Bay] a tectonical related* ***subsidence between 0.64 cm/century in the west and 0.54 cm/century in the east****. These are very small values".*
Furthermore BEHRE writes:
"Concerning the much discussed question of a possible tectonic subsidence of the German North Sea coast, absolute exact measurements were conducted in the years 1928-31, 1949-55, and 1980-85 ...".
Regarding all these known facts until 2003 BEHRE draws the conclusion: *"Therefore it seems, that* ***a tectonic caused subsidence of <1.0 cm/century is likely...".***

According to new examinations, these values are estimated too small.
In 2011, there has been published a study about trends of 15 coastal tide gauges in the Deutsche Bucht [4]. In it, there also are estimates of the Glacial Isostatic Adjustment (GIA):
"This, initially, gives estimates of rates of vertical land movement for the three tide gauges providing the longest records (***-0.7*** *± 0.2 mm/a for* ***Cuxhaven****,* ***-0.5*** *± 0.1 mm/a for Lt.* ***Alte Weser*** *and* ***-0.9*** *± 0.2mm/a for* ***Norderney****; negative values denote* ***land subsidence****).*
Thus, for these three long time gauges, **in average a coastal subsidence of 0.7 mm/year** is given, meaning that there is a **secular subsidence trend of 7 cm/century**.

In the same year 2011, there was published a comprehensive work [5] concerning post glacial and still lasting vertical land movements of the last millenium in Southern Scandinavia and Jutland. According to this, the zero line ("angular point") runs from the Nordfriesische Inseln in a southerly reaching curve over Denmark into the middle Baltic Sea (**figure 3**). For the reagion of the German North Sea coast, there thus results a tectonic **subsidence of about 10 cm/century**.

In a just published study by Mörner [29] three gauges in the Kattegat were analysed, i. e. close to the tectonic zero point ("angular point") :
"In the Kattegatt Sea, the glacial isostatic component factor is well established and the axis of tilting has remained stable for the last 8000 years. At the point of zero regional crustal movements, there are three tide gauges indicating a present ***rise in sea level of 0.8 to 0.9 mm/yr for the last 125 years."***
Thus, resulting from this there is a secular sea level rise of just about **7 cm**.

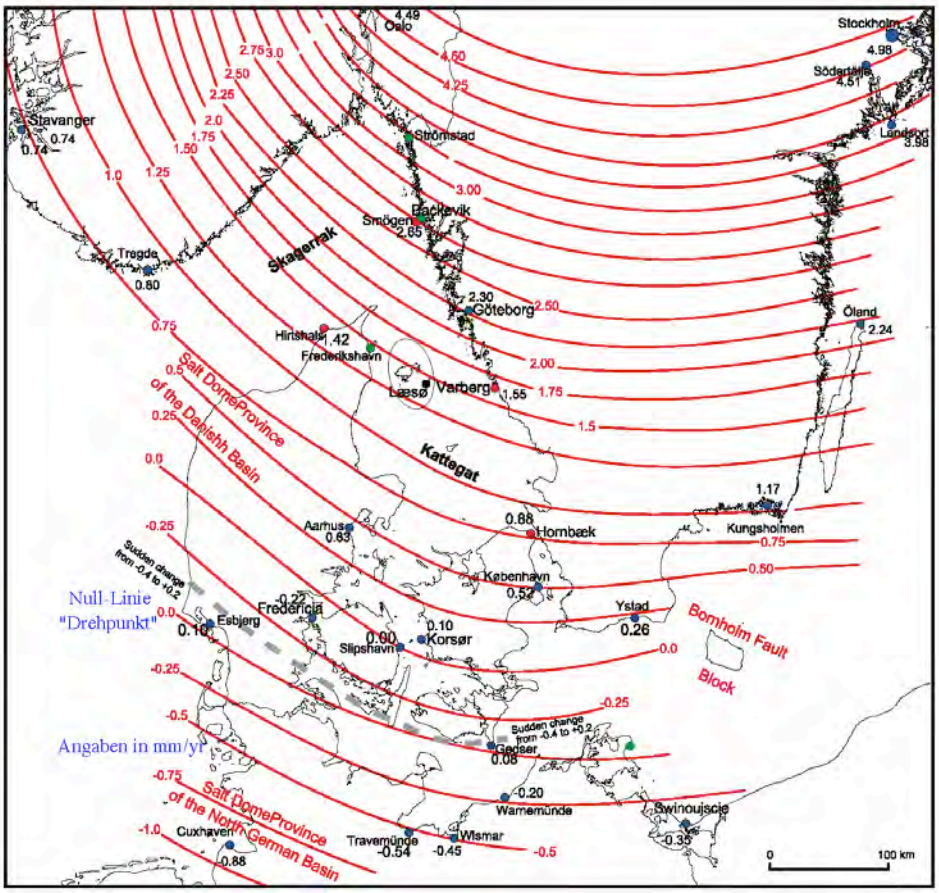


Figure 3

Present-time isostatic uplift rates (mm/yr) of Denmark and surroundings.

[5, there Fig.9] (blue explanations added)

The gauges in Cuxhaven and Norderney show a relative secular rise of 25 cm. The government of Lower Saxony says to this [6]:

"Climate change not noticeable: The government of Lower Saxony sees no indication of rising sea level at the North Sea coast of Lower Saxony. A trend to more frequent storm tides is not noticeable either, environmental minister Hans-Heinrich Sander told parliament. According to him, trend of rise is unchanged at 25 cm/century. An accelerating rise is not being observed".

With this, 1 cm/c as indicated by Behre would be negligible, whereas 10 cm/c as indicated by Hansen will lead to a meaningful conclusion: The balanced "Absolute Sea Level Rise ASLR" then will be **just 15 cm/c.**

C o n c l u s i o n :

Rise of sea level at the German North Sea coast measured by tide gauges was 25 cm during the last 100 years. Regarding the natural tectonic subsidence GIA, the ASLR even will go down to about 15 cm. A AGW climate signal is not detectable either way.

(3) Analysis of 15 coastal gauges in the Deutsche Bucht

An international team of authors scientifically lead by the *Institut für Wasserbau und Hydromechanik der Universität Siegen* published 2011 analyses of all available gauges for the Deutsche Bucht [7], some of which date back to 166 years ago.

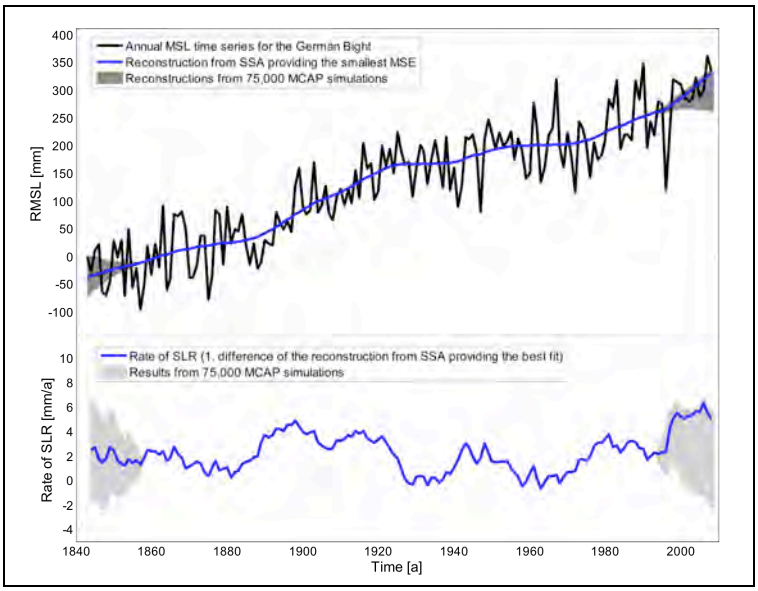
In this, isostatic estimates are discussed as well:

"Rates of vertical land movement are estimated from the sea level records using a simple approach and are compared with geological data and modelled GIA (Rem.: GIA: Glacial Isostatic Adjustment) *estimates."* [7a]

The smoothed analysis in **figure 4a** shows that **during a period of 166 years there were alternating periods of accelerating and slowing down of sea level rise:**

"An accelerated sea level rise is detected for a period at the end of the nineteenth century and for another one covering the last decades." [7a].

This is strongly underlined by rising rates changing by decades as shown in **figure 4b**:



Figures 4 a+b

Trends of 15 coastal gauges Deutsche Bucht [7a]

Looking at the whole time span with a polynom of 2nd degree [8], then as well a secular acceleration of sea level rise will not result, rather there will be a slowing:

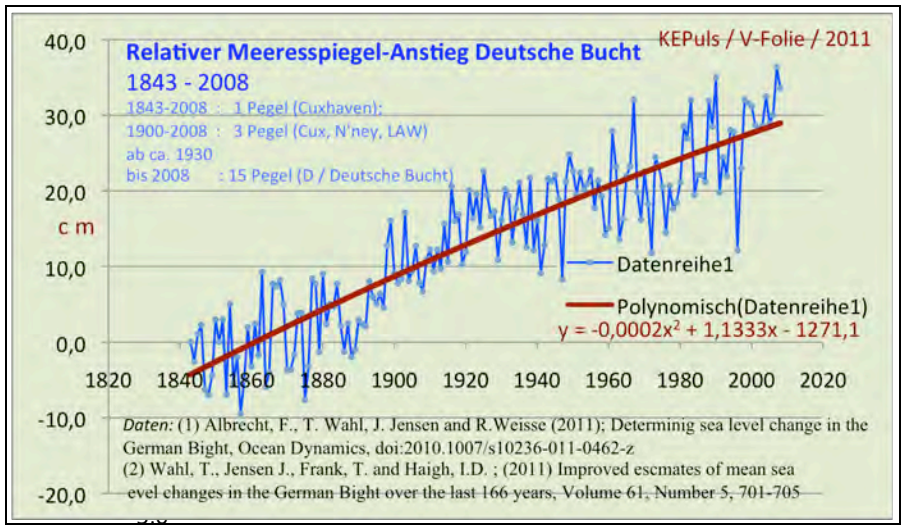


Figure 5

Polynomial trend from 15 coastal gauges in the Deutsche Bucht

Data: F.ALBRECHT, Th.WAHL et al. [7] ; Graphic: Puls/EXCEL

The authors, too, do not find any trend [7]:
*"Provided local sea level variations in Cuxhaven are unaffected by local effects and represent the **large scale signal in the German Bight** we would expect these residuals to be small and oscillating around zero with **no long-term trend or discontinuity**." (a.a.O.; Fig.6)*

Result:
"The estimated long-term trend (1843 – 2008) for the Cuxhaven station is 2.3 mm/a." [7a]
And further on: *"For the period 1951-2008, for which data are available from all gauges, the trends vary between 1.0 mm/a (Bremerhaven) and 2.8 mm/a (Norderney)."* [7a]
These data are without GIA-correction. Instead, the following corrections should be applied:
*"This, initially, gives estimates of rates of **vertical land movement** for the three tide gauges providing the longest records (**-0.7** ± 0.2 mm/a for **Cuxhaven**, **-0.5** ± 0.1 mm/a for **Lt. Alte Weser** and **-0.9** ± 0.2mm/a for **Norderney**; negative values denote **land subsidence**)."*
According to this, ASLR in the Deutsche Bucht in average for the 20th century just will be 13 cm!

C o n c l u s i o n :
The relative sea level rise (RSLR), averaged over all 15 gauges with different measuring periods, from 1843 to 2008 was about 32 cm, the secular rise in the 20th century about 20 cm. The GIA corrected values *(see chapter 3)* during these periods show an ASLR of about 22 and 13 cm, respectively. A secular acceleration does not exist, the polynomial in figure 5 even shows a small secular slowing of sea level rise instead. A CO2 climate signal is not detectable.

(4) Analysis of 30 gauges all around the North Sea

In 2013, an international team of authors has published an analysis of 30 gauges all around the North Sea (1880-2011) [9]. See **figures 6 + 7.**

The summarized result (with GIA correction)**:**
*"The long-term geocentric mean sea level trend for the **1900 to 2011** period is estimated to be **1.5 ± 0.1 mm/yr for the entire North Sea region**."*
Thus: **The secular linear trend in the 20th century is 15 cm.**
*"In summary the long term trends in the **North Sea are not significantly different from global sea level trends ..."*** u.w.a.a.O. :***"The recent rates of sea level rise** (i.e. over the last two to three decades) **are high compared to the long-term average, but are comparable to those which have been observed at other times in the late 19th and 20th century."***

For the alarmistic scenarios inside the climate debate, this result as well is nothing but a **desaster** because it is stated – even with comprehensive review of literature – **that there is no trend at all** of acceleration of sea level rise, neither secular nor during the last decades. This is serious contrary to all climate models:
*"... found little or **no evidence for on-going positive sea level acceleration** for the tide gauges located in the North Sea between 1870 and the late 1980's **of the sort suggested for the 20th century itself by climate models."***

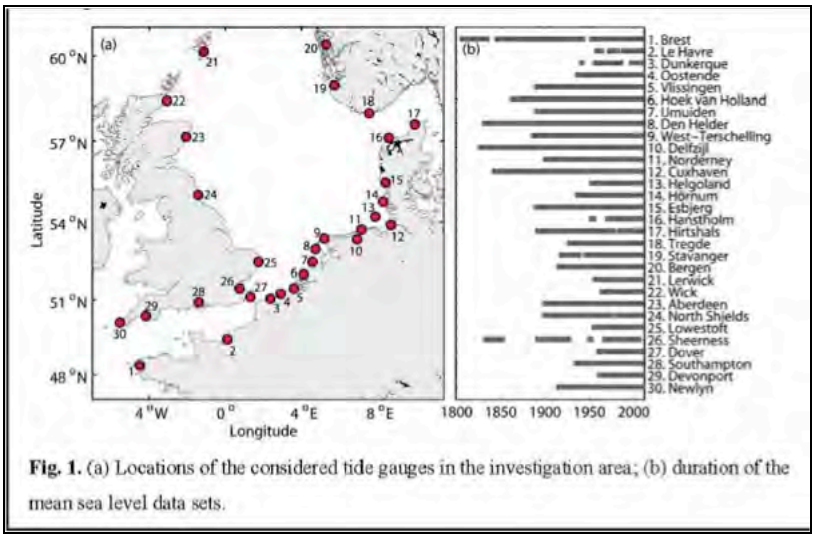


Fig. 1. (a) Locations of the considered tide gauges in the investigation area; (b) duration of the mean sea level data sets.

Figure 6 [9]

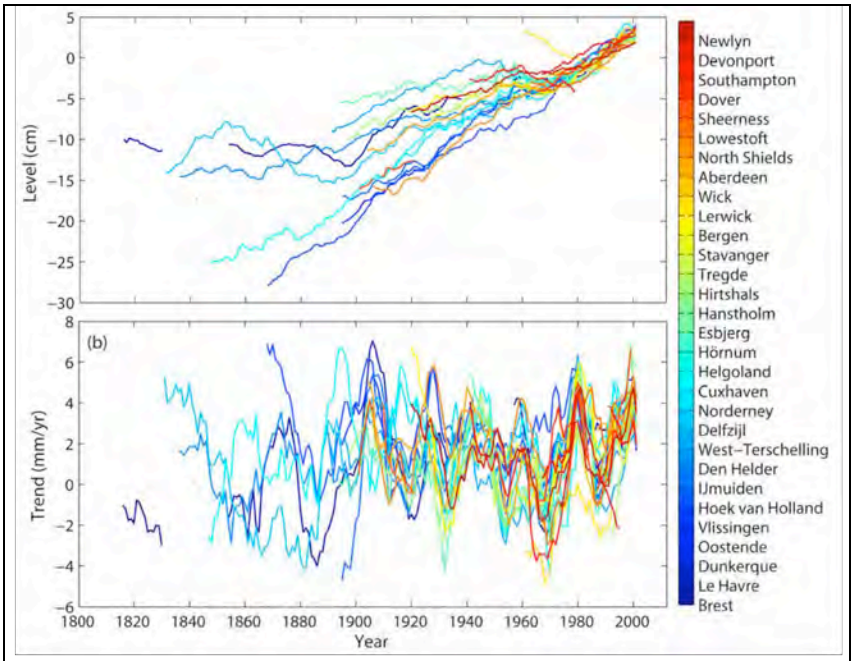


Fig. 10. (a) 20-year running means for all records, after correcting for GIA (for presenting purposes all records were adjusted to have zero mean for the 50-yr period from 1960 to 2009); (b) running 20-year linear trends for all records after correcting for GIA.

Figure 7 [9]

(GIA: Glacial Isostatic Adjustment)

C o n c l u s i o n:

The absolute sea level rise (ASLR) for the entire North Sea, averaged over all 30 gauges and GIA corrected, is 15 cm. An acceleration has not been found and therefore no AGW CO2 climate signal.

(5) Analysis of 182 gauges globally:

In 2013, Niels-Axel Moerner presented global analyses of gauges in two published studies, some of which even date back to the 18th century:

*"Removing outliers of obvious uplift or subsidence, there are 182 records left, which forms a nice Gaussian distribution around a mean value of **+1.65 mm/yr**."*
The gauge data shown in **figure 7** are not GIA corrected and therefore show the Relative Sea Level Rise RSLR:
"Because many tide gauge stations are affected by local subsidence, this value should rather be considered an overestimate, however."

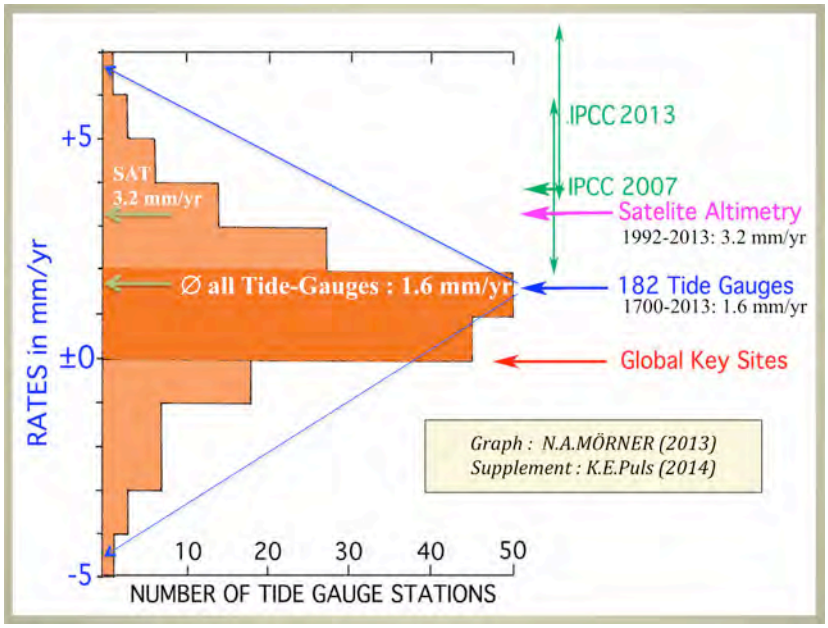


Figure 8: GAUSS-Distribution 182 Pegel [10]
(RSLR: without Glacial Isostatic Adjustment GIA; *"key sites: i.e. sites of special importance like the Maldives, Bangladesh, Tuvalu, Kiribati and Vanuatu ...Venice"*)

Here also, Moerner was critical in regard of the high satellite values (see chapter 8):
*"Satellite altimetry is a new and important tool. The mean rate of rise from 1992 to 2013 is **+3.2** ±0.4 mm (UC, 2013). **This value is not a measured value, however, but a value arrived at after much "calibration"** of subjective nature (Mörner, 2004, 2011a, 2013a).*
*The differences between the three data sets **< ±0, +1.65 and +3.2 mm/yr >** are far too large not to indicate the inclusions of errors and mistakes."*

C o n c l u s i o n :
Analysis of 182 gauges worldwide in average show a secular sea level rise of 16 cm without GIA correction. A secular acceleration of the rise has not been found and therefore no AGW CO2 climate signal.

(6) Analysis of 1200 gauges worldwide

In 2013, an international team of authors presented an analysis of 1277 gauges from 1807-2010 [11]. The global net average is shown in **figure 9**.
In this, GIA corrections have been applied:
*"The large uncertainties (up to 0.3–0.6 mm/yr) in our global sea level reconstruction are due to choice of GIA corrections, with difference up to 8 mm/yr in rate of sea level rise in individual locations, such as the Arctic, Baltic and Antarctic regions. **The GIA correction adds up to 0.3 mm/yr trend in the global sea level reconstruction**, with large differences between GIA datasets."*

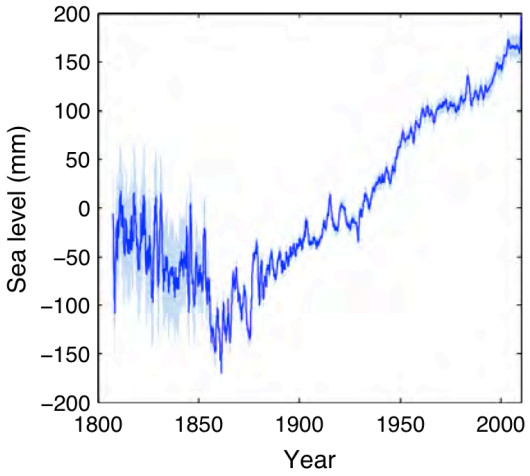


Fig. 3. Global sea level reconstruction since 1807, blue shadow represents 5 and 95% confidence interval. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

Figure 9
Sea level trend 1807-2009; 1277 gauges [11]

Although neither a regression line nor a polynomial was added to this graph (**figure 9**), it is recognizable just by looking at it:

() During the first half of the 19th century, sea level subsided by about 15 cm;
() Since about 1860, sea level rises – until present;
() Since 1860, decadal phases of more rapid and slower rise are detectable, an acceleration of the trend during the net period since 1860 is not; for the last 10 years since about 2000 there just a plateau shows up !?

At first, concerning these considerations, these statements of the publication fit perfectly (*abstract*):
"The new reconstruction suggests a ***linear trend*** *of* ***1.9 ± 0.3 mm·yr^{-1}*** ***during the 20th*** *century, with* ***1.8 ± 0.5 mm·yr^{-1}*** ***since 1970****."* (Rem.: 1970-2009).
This means:
The rate of rise during part of this period since 1970 is less than the rise for the entire 20th century! **Thus, a slowing of rise in the 20th century until today has taken place.**

But contrary to this, a few phrases further down in the publication we find (in the *abstract,* too):
"We calculate an ***acceleration of 0.02 ± 0.01 mm·yr^{-1}*** *in global sea level (1807–2009)".*
WOW! For 100 years, this would result in 2 mm. Coastal flooding ahead ?

In addition, this question arises:
How can the secular **"linear trend"** shown in the publication show an acceleration?
This is a contradiction in itself. A linear trend is described by a regression line and so cannot show any acceleration!?
Indeed, this is not the case, as the regression line in the SAT-Altimeter-Data from AVISO shows in **figure 10**:

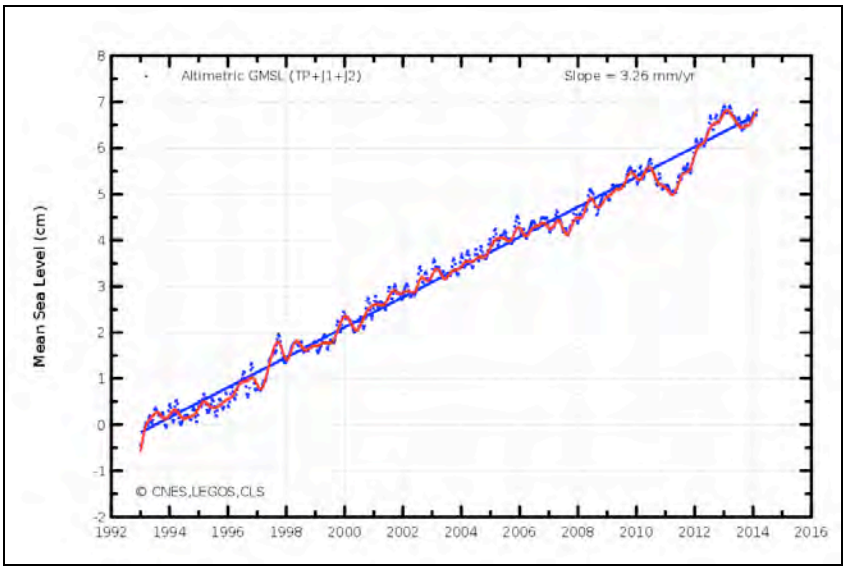


Figure 10
SAT-Altimeter-Data [12; AVISO] (POSEIDON/TOPEX/JASON)

However, there are further contradictions in the statements of the JEVREJEVA publication.
At first and on one hand:
*"... a linear trend of **1.9 ± 0.3 mm·yr^{-1} during the 20th** century"* (*Abstract*), and: *"GSL12 shows a **linear trend** of 1.9 ± 0.3 mm·yr−1 during the 20th century ..."* (*Conclusion*).
This is little more than half of the altimeter measurements of 3.3 mm/yr in the AVISO-data **(Figure 10).**

On the other hand, in the preceding sentence in the "conclusion" we read:
"*There is an excellent agreement between the linear trends from GSL12 and satellite altimetry sea level since 1993, with rates of 3.1 ± 0.6 mm·yr−1 and of 3.2 ± 0.4 mm·yr−1 respectively".*

SO WHAT NOW (?):
3.1 mm/yr or 1.8 mm/yr – because: the gauge period named here 1970-2008 also contends the altimetric measuring period since 1993! B e c a u s e of that such a "Data jump" since 1993 must be visible in **figure 9** (fig.3 in [11]) – but there is none! Instead, you find in **figure 9** starting in 2000 some kind of plateau - "Zero rise"!

The whole thing becomes completely puzzling if in addition you look at fig. 7 in the JEVREJEVA publication [11]: There two regression lines 1993-2009 are virtually congruent:
"Dashed red and blue lines represent linear trends for satellite altimetry (3.2 mm·yr−1) and tide gauge (3.1 mm·yr−1)...". Of which in **fig. 3**[11] **=> fig. 9** there is no trace when compared with SAT data from AVISO !?

It is not understandable how such a comprehensive publication which is stuffed with so many contradictions can pass peer review.

C o n c l u s i o n :
The work of JEVREJEVA et al. [11] **does not clarify the big discrepancy between gauge data and satellite data. Instead, it creates much more confusion. The same is for the contradictory trend interpretations concerning sea level rise in this work.**

(7) GRACE satellites comfirm the gauges: 1.7 mm/yr!

An updated analysis [13] of gravitation fields with GRACE satellites confirms the numerous publications of gauge analyses.
"New study via GRACE data: ***Sea level rises less than 17 cm per century"*** *... "A new study conducted with GRACE data (Gravity Record And Climate Experiment) shows that during the last 9 years, the* ***sea level*** *has risen with a rate of just* ***1.7 mm/yr.*** *This is an equivalent of 6.7 inches =* ***17 cm per century. This matches well with gauge measurements".***
...
From the IPCC FAR section 5.5.2: ***Holgate and Woodworth (2004)*** *estimate a rate of* ***1.7 ± 0.4 mm/yr****, averaged along the global coastline during the period 1948-2002 based on measurements at 177 gauges, divided in 13 regions.*
Church et al. (2004) *computed a global sea level rise of* ***1.8 ± 0.3 mm/yr*** *1950-2000, and* ***Church and White*** *computed a rise of* ***1.7 ± 0,4 mm/yr during the 20th century".***
Meaning of this result:
The corrected end result of Baur et al. is most encouraging, when Chambers et al. (2012) show that ***sea level in average rose by 1.7 mm/yr during the last 110 years*** *like derived from the analyses by Church and White (2006) and Holgate (2007).*
Simultaneously, CO2 concentration in the air increased by one third. And still this rise has not affected the rate of global sea level rise!"

C o n c l u s i o n :

The two extremely different methods of gauge measuring and gravity measuring (GRACE satellites) **match amazing well showing 1.7 mm/yr, respectively, by one tenth of a millimeter! However, this again rises the critical question asked in literature quite often why the satellite measuring (TOPEX/POSEIDON/JASON show almost double these values – exclusive of all measuring methods (➔ chapter 8):**

(8) Gauges *versus* SAT-ALTIMETER

Gauge measurements published worldwide (**see figs. 4-9,** and further publications [14]) as well as gravimetric measurements of the GRACE satellites show an average sea level rise by **1.5 – 1.7 mm/yr** globally, that means **15-17 cm secular**, whereas altimeter measurements from other satellites, available not before 1992 **(figs 10 + 11)** show twice these rising rates [15]: **3.2 mm/yr.**
With the beginning of the SAT altimeter era (1992), measurements published at first even were significantly below 1 mm/yr, that means significantly even below the gauge values. During the following years, the SAT data were repeatedly **corrected to higher values**. The reasons for this are not clear, as a very comprehensive history from RUDOLF KIPP indicates [16]:
"Just on behalf of numerous corrections based on assumptions which are not laid out in detail, one gets the "official" value today of 3.1 mm/yr".

It is conclusive to cite here some more paragraphs from this documentary:
"The Environmental Satellite (Envisat; 2002-2012) is something like a show-piece of the European Space Agency (ESA) ... This satellite is supposed to measure the sea level, amongst other things. However, analysis of these latter data so far lead to results which neither match with IPCC statements of an accelerating sea level rise nor with measurements of the American JASON satellites. ...
Sea level rise measured by Envisat was just 0.48 mm/yr during the period late 2003 until late 2011 correlating to 4.8 cm per century. For the same period, measurements of the Jason 1

satellite found a rise by 2.05 mm/yr. ... To cope with this there were discussions within the ESA already last year how to fit the data numerically with the results of Jason measurements. While converting to the newest version of the Envisat data (version 2.1), this fitting apparently has been done. ***Because of this fitting, a minimum rise of 0.48 mm/yr changed almost over night to 2.32 mm/yr.*** *Someone looking for reasons for this procedure will find them on the Aviso homepage under"Processing and corrections". There we read: 'sign of instrumental correction (PTR) corrected via external* CLS *input (impact of +2 mm/year drift)'. This means external data have been fitted.* ***However, no word was lost what kind of data these were or which circumstance had required such a radical intervention".***

...further on we read:
"And the currently applied corrections of the Envisat project data as well do not only follow the well known scheme, that these procedures without exception all go in the same direction: upward to higher values".
The reasoning as well provided by the scientists is more to obfuscate all this than to explain why such a fundamental intervention in the data was necessary. *What is remaining is the impression that data has been "grossed up" systematically. After all, the next IPCC report is due 2014. And this report can unfold its full effect only when everything is described far worse as was known for sure in the last report 2007. A sea level rise slowing down more and more since many years would not be helpful on this behalf".*

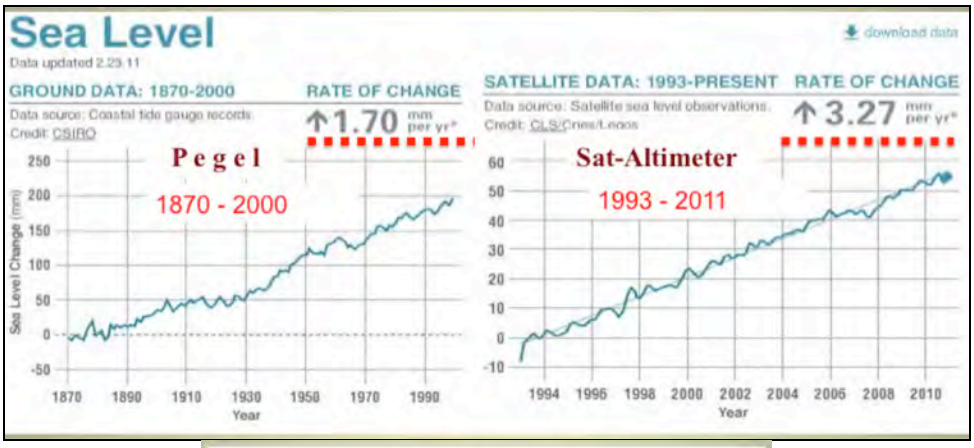
And these prophetical words by RUDOLF KIPP from 2012 already came true 2013, because it just was exactly like he said: For the first time following the three preceding reports (1995, 2001, 2007), the IPCC has raised his sea level prognosis 2014 for the year 2100. In the former, the IPCC conducted a step-by-step reduction towards measurement reality: ➔ **Fig. 12 !**

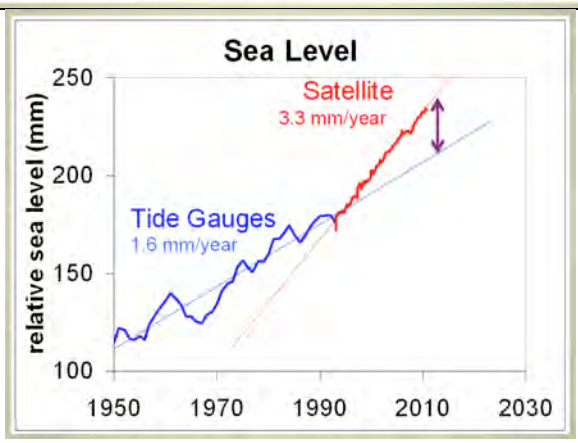
Some renowned oceanographers commented on that [17]:
"*I consider it unlikely that the sea level rise has accelerated just in the very year the satellites were put into operation"*, *SIMON HOLGATE, sea level researcher at the National Oceanography Centre in Liverpool. ... "****whether we have an acceleration since 1993 is not clear"****,says JOHN CHURCH from the Australian* ***CSIRO****.*

NILS-AXEL MÖRNER [18] (University of Stockholm, Paleogeophysics & Geodynamics):
"Satellite altimetry is a new and important tool. The mean rate of rise from 1992 to 2013 is +3.2 ±0.4 mm (UC, 2013). ***This value is not a measured value, however, but a value arrived at after much "calibration"*** *of subjective nature (Mörner, 2004, 2011a, 2013a). The differences between the three data sets < ±0, +1.65 and +3.2 mm/yr > are far too large not to indicate the inclusions of errors and mistakes."*

Everything was summarized in a graph **(Figs. 11 a + b)**.

Indeed, the just published comprehensive studies, already cited in the sections (3) + (4) [WAHL, ALBRECHT et al. 2011, 2013] agree that the secular rise in the North Sea is about 13-18 cm – without (!) acceleration. But no word is said about the big discrepancy of these data compared with the altimeter measurements except for such succinct phrases like:
*"For the period 1993 to 2009, the estimated global MSL trend from altimetry records is 3.2 ± 0.4 mm/yr****, almost double that observed*** *from 1900 to 2009 (Church and White, 2011)."*
A critical scientific discussion is completely missing – strange.





Figures 11 a+b: Comparison of gauges and SAT data
[19] (texts in Fig.11a added)

C o n c l u s i o n :

The extensive discrepancy between SAT altimeter data and gauges is not cleared until this very day [20] **:**

"Notwithstanding the new satellite observations, the gauge measurements of course have been continued. And these did not allow to be mislead and stubbornly stuck to their old course of significantly below 2 mm/yr. Instead correcting the satellite data down to fit the real observed data at the surface, regrettably the discrepancy between gauge data and satellite data is still present until today. ***And somehow it seems nobody is disturbed by that. A real mysterious case".***

(9) DER SPIEGEL: "Bargaining like on a bazaar"

Furthermore, it is **remarkable** what the paper "DER SPIEGEL" writes under the headline *"**IPCC bargains data concerning sea level rise**."* It is about the way to "creation" of sea level forecasts at the IPCC reporting about a congress of sea level researchers (July 2011):

"Many billions Euro are at stake: An UN-body decides what the prognosis is for sea level rise – it determines how many of the taxpayer's money the nations have to put into the coastal protection. Hundreds of studies are subject to negotiations, ***it is just like on a bazaar****"*
And further on:

"Bargaining for results is equivalent to trade on a bazaar: *On one side, the researchers have published* ***alarming forecasts concerning sea level rise*** *going far beyond the statements in the last UN climate report.*
On the other side there are real measurements of the sea level: They do not indicate an extreme rise". *... "On the IUGG-congress of oceanographers, 4000 experts discussed their results. Occasionally, the* ***dictum*** *is:* ***Who offers more?"*** *... Climate researcher* ***James Hansen*** *for example warns in an up-to-date study (here) that the sea level could rise up to* ***five meters*** *during the next 90 years – he thus multiplied the highest estimate in the last UN report by nine.* ***Some climatologists say: with such extreme forecasts, he risks to loose his credibility."***

However, in this kind of bazaar one finds still some objective voices:
"The ***higher rising rates since 1993 are nothing extraordinary****, says Guy Woeppelmann from the Université de La Rochelle in France. In the 20th century, once the rise was similar accelerated, but* ***slowed down again afterwards****".*
"Something similar is going on right now again*, says* ***Eduardo Zorita from the GKSS-Institut für Küstenforschung*** *(Institute for coastal research):* ***during the last eight years, sea level rise slowed down. It is unclear how it will go on".***
And further on:
"Researchers Jim Houston from the Engineer Research Center in Vicksburg and Bob Dean from the University of Florida in Gainsville surprisingly explained in the "Journal of Coastal Research" that ***the sea level during the last century has risen constantly. An acceleration is not detectable".***

All this did not hinder the IPCC to propagate again an acceleration of sea level rise during the next 100 years in AR 5 2013/14, against all former and up-to-date observational data. In the preceding reports, it has downgraded the rise close to the observational reality. (**Figure 12**).

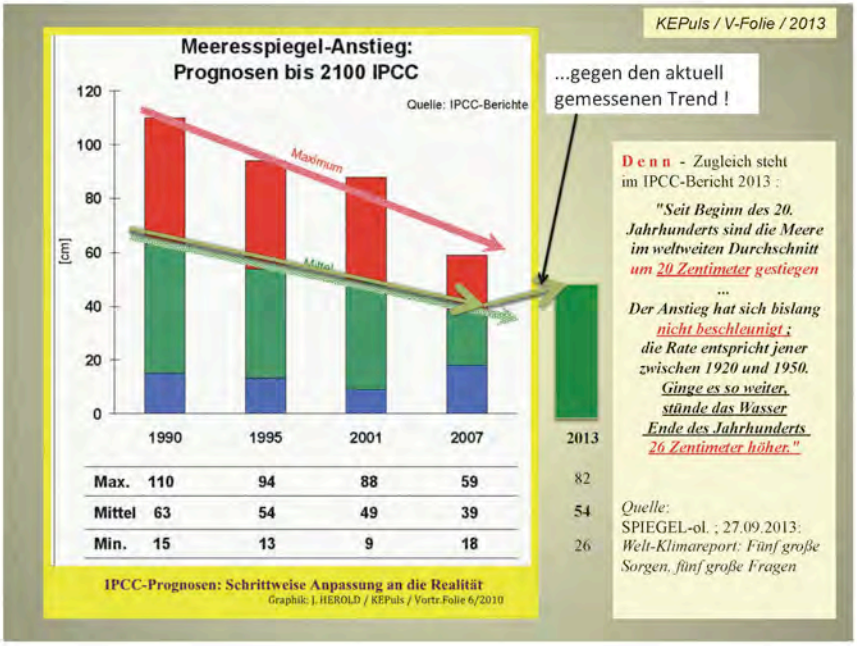


Figure 12
IPCC-forecasts of sea level rise [IPCC/AR's 1990-2013]

C o n c l u s i o n :

IPCC forecasts do not have much to do with objective science any more. As DER SPIEGEL puts it: *"It is like bargaining on a bazaar".*

(10) Confidence crisis of the IPCC institutes regarding sea level alarm either

Triggered by the **"Climate Gate Scandal"** in 2009, a grave confidence crisis occurred for the IPCC, lasting until today.
This loss of confidence in the IPCC-forecasts shows up again and again in fantasies about gigantic sea level rises, spread out by some institutes [23]:
On the IUGG-congress of oceanographers in Melbourne, Australia, 4000 experts discussed their results. Occasionally, the ***dictum*** *is:* ***Who offers more?*** (see chapter 9).

So it cannot astonish someone that planners of coastal protection do not believe in such predictions. Therefore, even **Stefan Rahmstorf and the PIK** are hardly taken serious any more when announcing such extreme predictions [24]:
"In weighing very carefully all available information, the ***Senate of North Carolina*** *decided in June 2012 with a vote of 35 to 12, that* ***planning for coastal protection*** *in the future must closely match with historically well documented sea level rising rates.* ***Anacceleration like the one postulated by Rahmstorf et al. should not be taken into consideration.*** *(See reports at junkscience, Climatewire, WUWT, John Droz Jr.). This law was approved also by the House of Representatives in North Carolina (here). ... The republican politician Pat McElraft has spoken strongly in favour of this regulation and concluded:* ***A rapid acceleration of sea level rise in the future must be seen as unrealistic and is based solely on assumptions".***

Meanwhile, the IPCC's confidence crisis even has reached the German media, usually located on the alarmistic side [25]:

"If soon is thought about the losers of the year, the climate researchers are way on top of the lists. ... Stocker [26] has been virtually drowned some weeks ago when presenting his IPCC report, because he tried in vain to convince politicians and the public to exclude the "hiatus" of the world's temperature from climate politics. ... But logic of politics is different: If climate research is not counting for so grave variations in the presence, how then could we believe their predictions for the next 100 years?"

DER SPIEGEL [27] launches already kind of a "swan song" for the IPCC:
The Great Day of the IPCC was celebrated on Friday with a meagre attended press conference in Batumi, Georgian Republic *(Oct. 18th, 2013)****.... There were hardly any guests for its 25th birthday, just water was offered. … It was like a swan song of that organisation, after all being honoured with the Peace Nodelprize 2007. Probably, there will be no further big climate report".***

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S U M M A R Y

The permanent alarmistic announcements concerning an alleged dramatic rise of the sea level in the presence and the future cannot be confirmed by observations. Instead, they even are rebutted by measured data. Worldwide, neither gauge data (200 years) nor satellite data (20 years) show an acceleration of sea level rise. All statements of the IPCC, of some climate

institutes and the climate models stand in blatant contradiction to these data. In addition, there are indications that the satellite data has been "over corrected" towards higher values [28] **: "*Instead of fitting the satellite data to the real observations at the surface and correct them down, unfortunately the discrepancy between gauge measurements and satellite observations is still here today. And it seems nobody is disturbed by this. A mysterious case.*"**

Klaus-Eckart Puls
Translated by Chris Frey (EIKE)

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