

The ATSR Story part 2

→ What is (A)ATSR achieving ?

→ CHAIRMAN'S REMARKS

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If the message of Part 1 was:

ATSR is “SIMPLY THE BEST”

sensor for measuring Earth's
surface temperatures



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The message of part 2 has been

(A)ATSR is really making a difference

In measuring climate change
In operational monitoring and forecasting
In discovering more about the ocean



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The ATSR application story is one of success

But its success

- is different from most missions
(no major “gee-whiz” discoveries)
- has come slowly
(15 years to fruition)
- lies in the quality of its data products
which now commands international respect

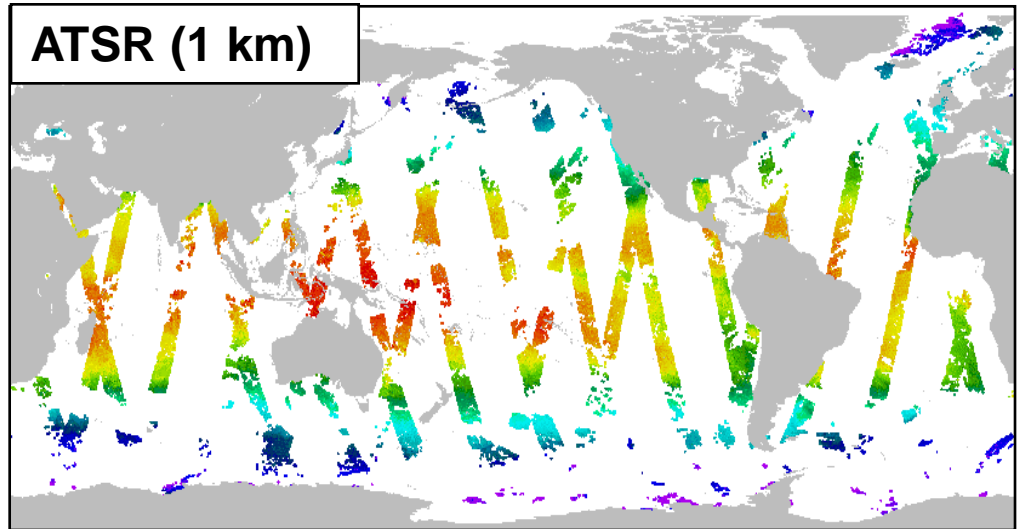


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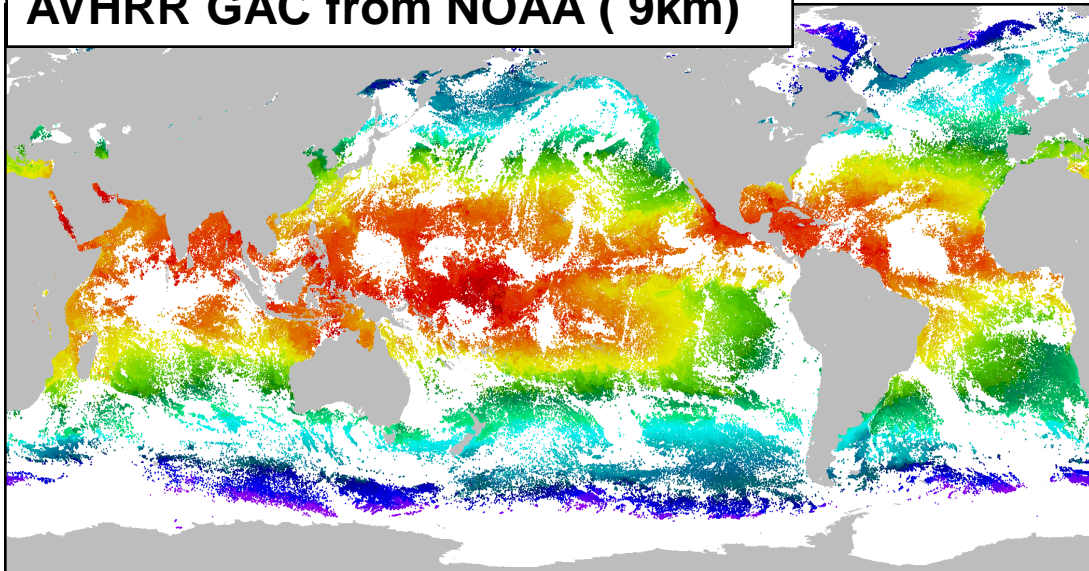
5 years after ATSR launch

Which is best ?

Do you want
accuracy or
coverage?



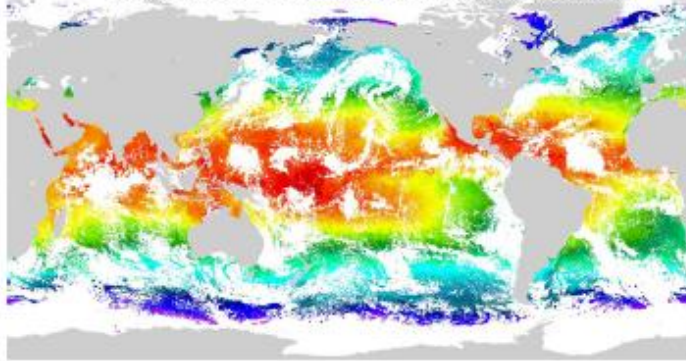
AVHRR GAC from NOAA (9km)



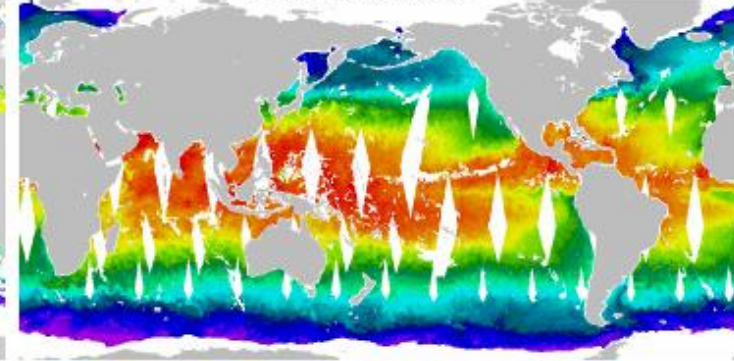
Typical daily coverage
by competing SST
data products

10 years after ATSR launch

AVHRR GAC from NOAA 17/18 (9km)

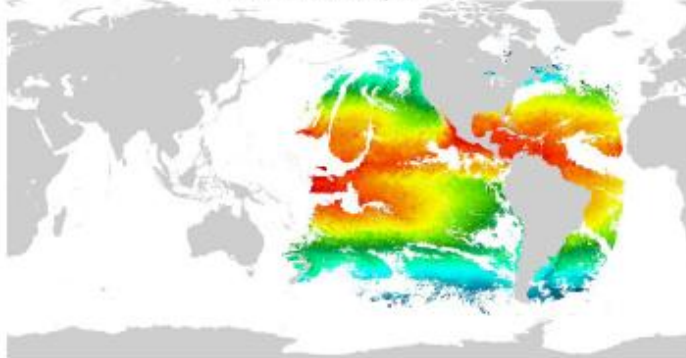


AMSRE (25 km)

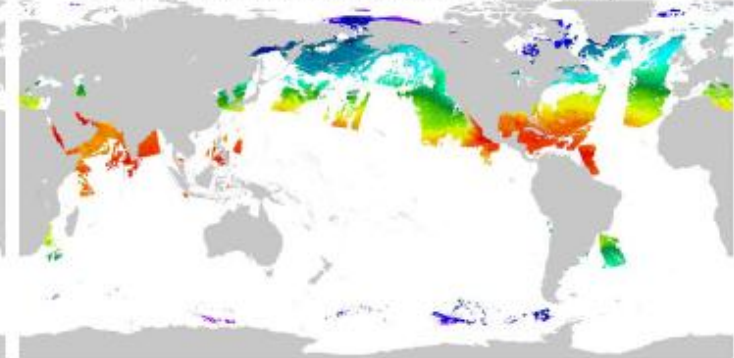


Typical daily coverage by various SST products

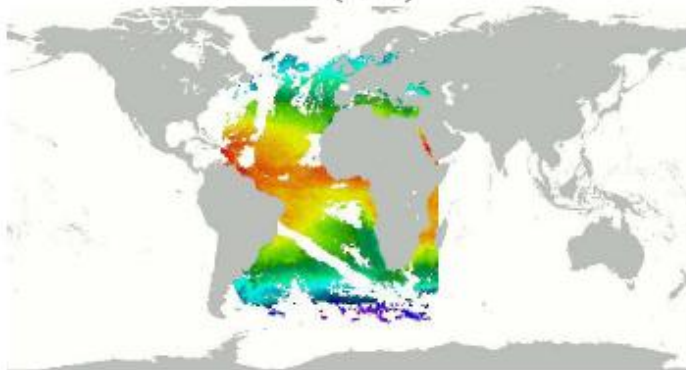
GOES E/W (5 km)



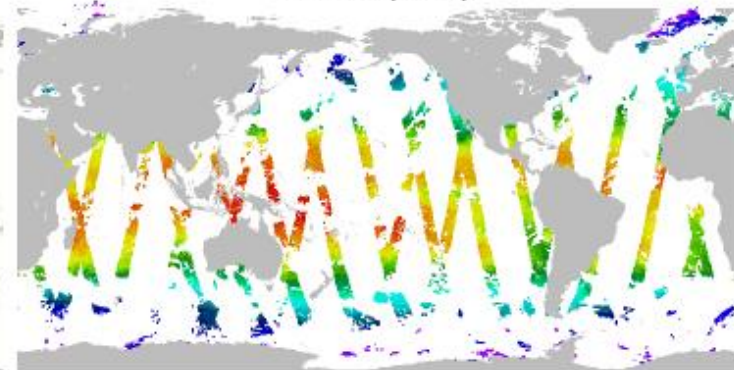
AVHRR LAC from NOAA 17/18(1 km)



SEVIRI (5 km)

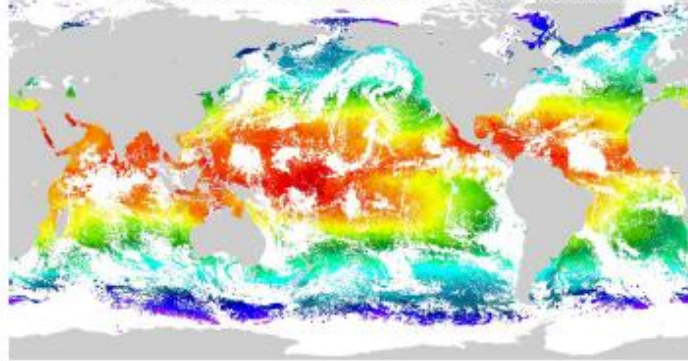


AATSR (1 km)

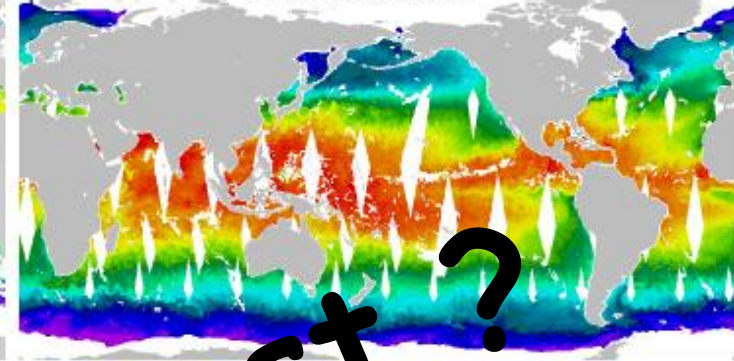


10 years after ATSR launch

AVHRR GAC from NOAA 17/18 (9km)



AMSRE (25 km)

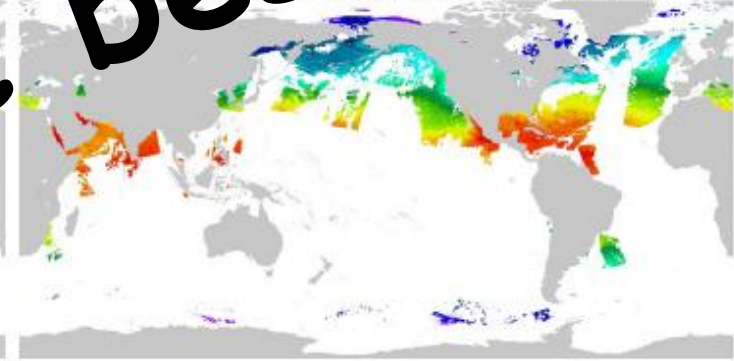


Typical daily coverage by various SST products

GOES E/W (5 km)

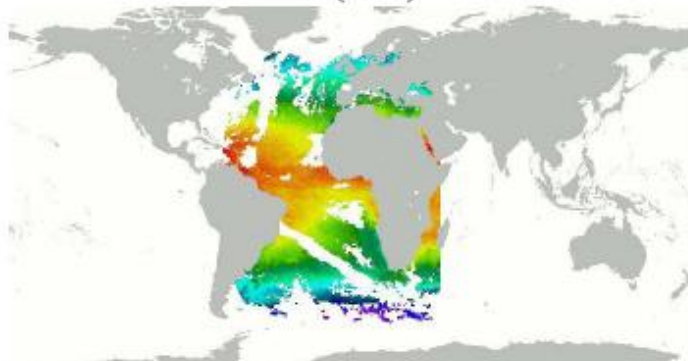


AVHRR LAC from NOAA 17/18(1 km)

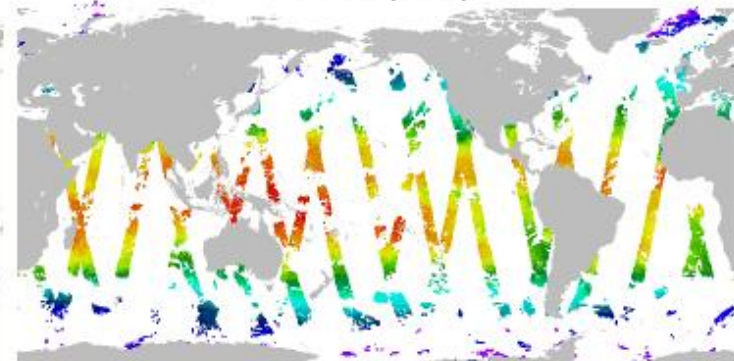


Which is the best ?

SEVIRI (5 km)

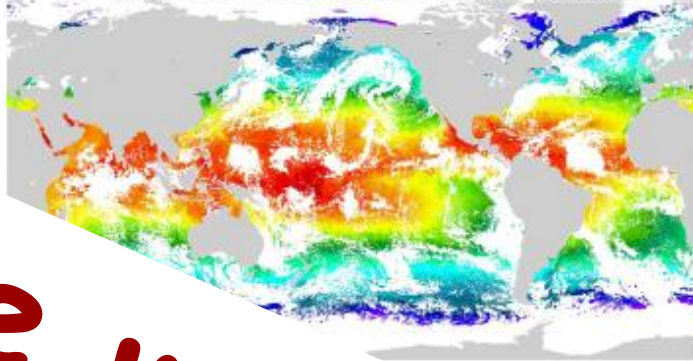


AATSR (1 km)

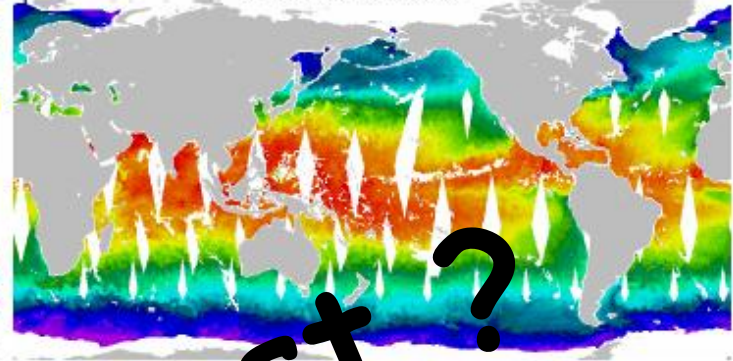


10 years after ATSR launch

AVHRR GAC from NOAA 17/18 (9km)

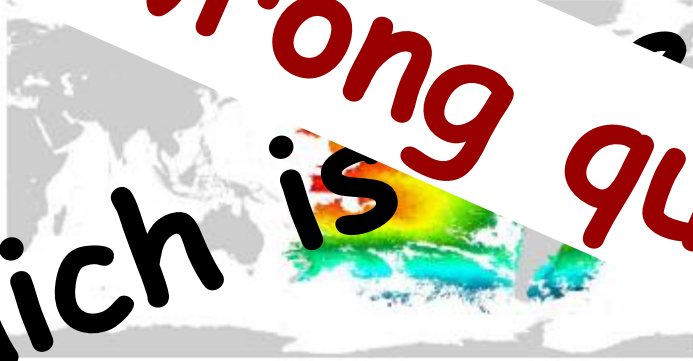


AMSRE (25 km)

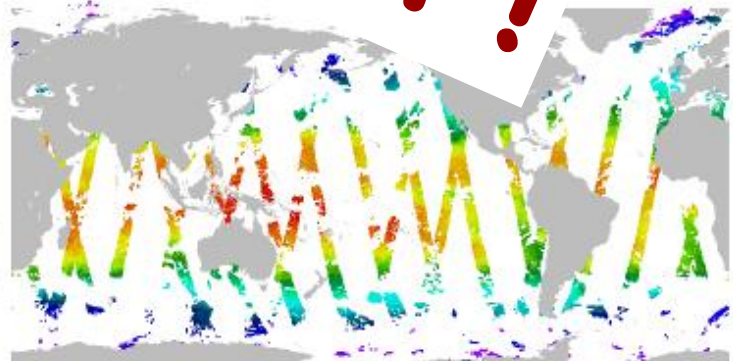
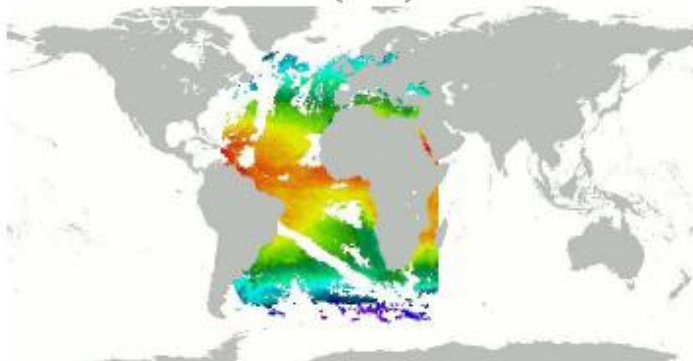


Typical daily coverage by various SST products

AVHRR LAC from NOAA 17/18(1 km)



SEVIRI (5 km)



The wrong question!



15 years after ATSR launch

The OSTIA SST analysed SST product created from AATSR

A new question !

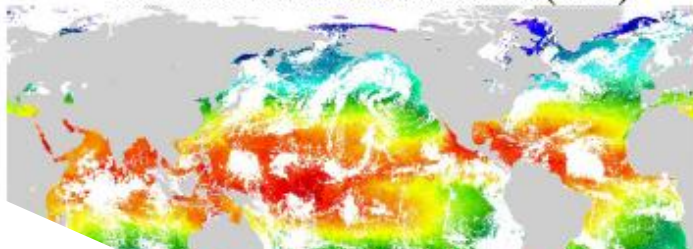
From the GHRSSST international science team to ESA:
Please can you provide continuity of ATSR-
class dual-view sensors to support operational
ocean needs beyond Envisat

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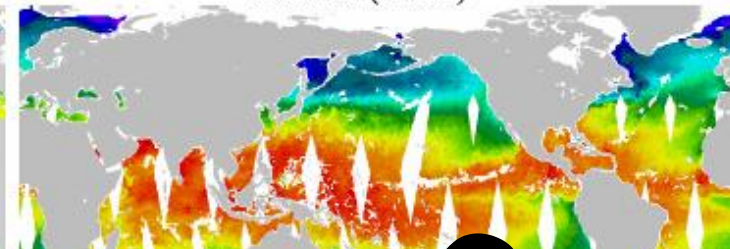


10 years after ATSR launch

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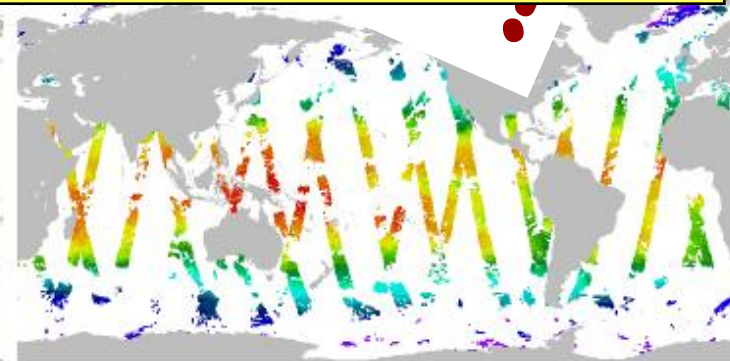
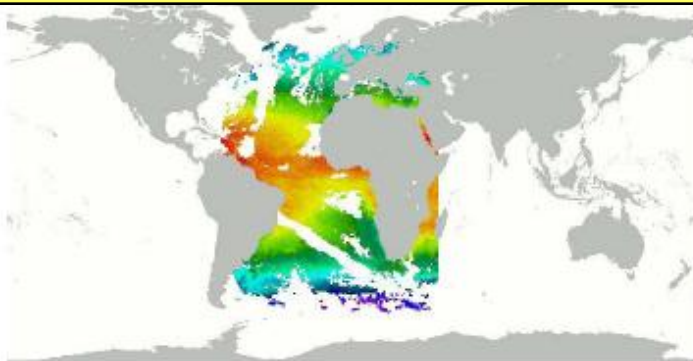


AMSRE (25 km)



The right question !

How can we use the best qualities of all the different SST products to overcome their individual weaknesses ?



A maturing of international co-operation

Note the transition of attitude

From sterile competition

- through a growing spirit of co-operation
 - collaborative planning of future missions
- to provide the monitoring systems needed for a threatened planet.

And (A)ATSR delivered the quality needed to underpin the reliability of this approach



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The true success of the ATSR application story

It has become the foundation for a global system of error-quantified measurements of temperature from space

It has provided the justification for a new synergy in Earth observing

- exploits complementarity of different sensors
- encourages international cooperation between agencies



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Another success of the ATSR story

It has inspired two new generations of scientists to engage in SST and LST research

- The class of research students when ATSR launched are today's world leaders in the field
- A new generation are using (A)ATSR data for PhDs in the 2000s – tomorrow's leaders in climate change research

Inspired by the quality of a remarkable sensor



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The creators of ATSR should be proud

Your instrument has delivered SST data of excellent quality for climate science.

It has fostered the emergence of new Earth monitoring systems and the scientists to populate them.

It all adds up to a valuable legacy for future generations of mankind

THANK YOU - the pioneers of ATSR !!



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