

GHRSSST and Some Possible Future Developments

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David Llewellyn-Jones
AATSR Principal Investigator

*Space Research Centre
Department of Physics & Astronomy
University of Leicester*



GHRSSST and the Future

- Summary of Achievements
 - Example - What it has meant for AATSR
 - What is GHRSSST Now?
- What should it do Next?
 - Development of SST Work
 - Do the users REALLY want BTs?
 - New Parameters? (*e.g. Ocean Colour*)
 - *The Challenge of Coupled Models*
 - *etc*)
 - The Role of the User
- Summary - the keys to success

GHRSSST -

What has it Achieved?

- 1) It has Responded to a User Requirement
- 2) It has turned a disparate collection of data-streams into a an orderly data-service
 - In a way that meets and respects the Needs of Operational Users
- 3) Achieved this through international cooperation and gaining the proactive support of Major Agencies

The Example of AATSR

- We knew that AATSR was the best
 - but nobody seemed to agree with us
- Why was that?
- Because the data were not very accessible, in a in a cumbersome format and not there when needed by operational users.
 - Minor details, one might say, considering how good the data were . . .
 - Also, more realistically, it required major changes in systems not under our control

- **Emancipation of Microwave SSTs**
- **Diurnal Variability:**
 - Was an irritating, highly variable second-order effect
 - Now, thanks to GHRSSST, characterised on a sound quantitative basis
- **Climate Data Record:**
 - GHRSSST is generating, to uniform standard, The GHRSSST Climate Data-sets will surely attract substantial attention from users
- **GHRSSST User Community:**
 - Poised for growth

So, after 12 Years, What is GHRSSST now?

- Sullen Teenager?
- Grumpy Old Man?
- Saviour of the Future World



Am I ever
going to
get - - - - ?



People just
don't do it
properly any
more!



Wowwww!

What Should GHRSSST do Next?

Options include:-

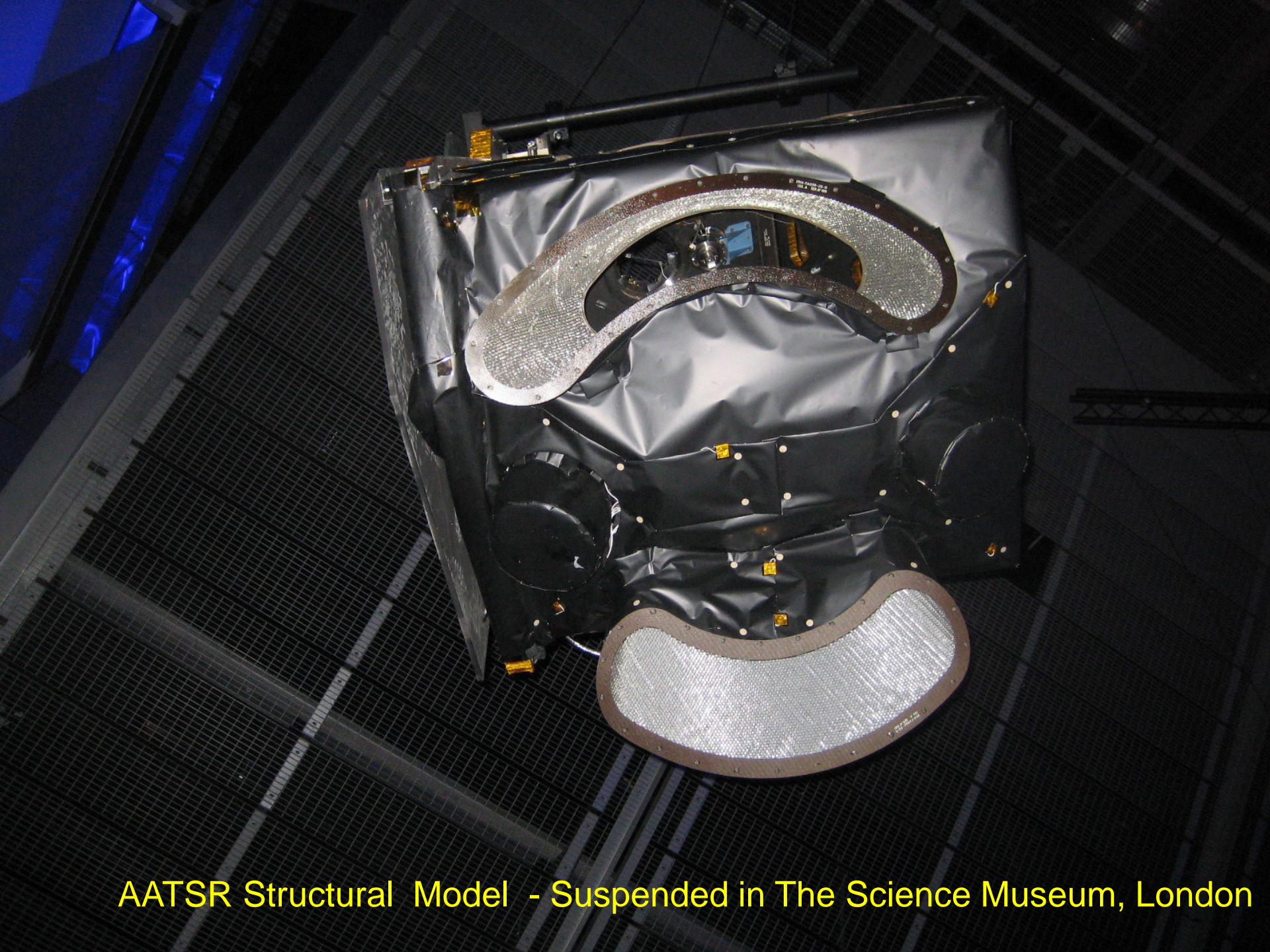
- Business as Usual?
 - Must continue SST development
 - but should GHRSSST branch out?
- Strong cases can be made - for and against
 - because, as product quality improves, future improvements will become increasingly marginal

Where to Branch Out?

- SST services will, of course, continue to develop and expand
- Level I GHRSSST products have been suggested
 - This idea presents serious issues
 - e.g. Data volume,
 - who are the users? How many?
 - Is there any such thing as a L1 ensemble?
- Ocean Colour considered, but users too disparate at present
- There has to be a potential user community who know what they want

- **Coupled ocean-atmosphere modelling** has been a goal for several decades
 - Now approaching maturity
 - Will have a need for assimilation of multiple satellite data-sets
 - Could GHRSSST consider developing a service to provide a key subset of the data required for operational coupled models?
- **End-user Community**
 - Now is the time to identify them (non-trivial)
 - Plan to consolidate the user-community at a Major User Symposium (2 years' time?)

- Much of the work done by GHRSSST Science Team concerns shortcomings in the sensors used.
- To address this in the long term, there is a need for innovative designs for future instruments.
- Where will this innovation come from?
- Are current education practices, also assessments of research efficacy, giving us scientists who have never measured anything and engineers who have never but anything?
- Is this the right recipe for innovative observing systems?



AATSR Structural Model - Suspended in The Science Museum, London







Duvant Male Choir - Brangwyn Hall Swansea, 4th May, 2013





University of
Leicester