

# The first 33 months of an „uneconomic“ retired scientist

Summary by Gerd K. Hartmann<sup>1</sup>

October 2003

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## Introduction

Because the Max-Planck-Institut fuer Aeronomie (MPAe) has replaced its atmospheric research activities by solar system research the author retired at the end of the year 2000 after having reached the age 63, but he continued half-daily with his previous atmospheric research activities until MPAe discontinued -because of economic reasons at the beginning of the year 2003 – the (unpaid) contracts with most of the retired scientists. (It was claimed that the infrastructure costs were too high in this period of shrinking resources). It soon became clear that these retired scientists - if they are still interested and motivated to continue research work - are not only considered „uneconomic“ from a public point of view, but that they are also uneconomic from a relevant private view. They do not only invest many hours but also significant private money, especially for travel costs\*. Therefore the author had to downsize his previous research activities, i.e. stopped in 2003 completely his atmospheric ozone research. Only **two** pilot projects remained and will be continued in the future together with an interdisciplinary theoretical study about the concept of time and further discussions about “More University”, that have recently been started with ZAWiW (Mrs. C. Stadelhofer) of the University Ulm. Since 2001 he continues - as a retiree - the DUST-2 activities, and the activities that have been started in 1986 in Mendoza, Argentina – see file [chronicle1.pdf](#) - and he works as honorary consultant for science and technology for the German-Islamic Institute for Scientific and Cultural co-operation e.V., in Celle, Germany. Since 2003 he is also honorary consultant for Science-softCon in Maintal near Hanau, Germany and for BSR Solar Technology GmbH in Loerrach, Germany.

*\*Remark: The more the financial resources of the retirees are reduced by the German government the more these expenses must be reduced and compensating support is required.*

## 1. Pilot projects „DUST-2/ADLATUS“

Since 1995 the focus of the author’s scientific work at MPAe has been: Documentation and (value adding) validation of special remote sensing data from the Earth’s Atmosphere. This gave rise to the DUST-2 CD-ROM project and to various ADLATUS pilot project proposals – specifically to mention: a) ADLATUS for elementary schools together with the Konrad Adenauer School in Seligenstadt (Hessen) and b) the further development of the **Spectra Data Base UV/VIS+** of the firm **science-softCon**. (For both see: [www.science-softcon.de](http://www.science-softcon.de) ). *Remark: The project ADLATUS for schools comprises in its first phase the co-operation of teachers from the Konrad Adenauer elementary school (KAS), scientists, and representatives of the parents of the kids for the development and implementation of a children adequate computer supported education concept.*

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**Remark:** The author is not responsible for the content of foreign linked pages

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## 2. History of the Pilot Project proposal: „Solar Reflector Water Destillation“ (SRWD)

In context with its intercultural co-operation activities the SURE-TEC.COM Team (STC Team) proposed **SRWD** in March 2003 – see chapter 5 - to be first installed in the Sonora Desert (Mexico) for the Tohono O’odham and other indigenous people.

It is based on the hitherto unrealised pilot project proposals ECOVILLA (Argentina, 1988), DEREMOTOX (Russia, 1999) and CSE\* (South Africa, 2002) and uses important experiences from major international (NGOs and social) organisations, e.g. Global Ecovillage Network (GEN), Carebridge, and also findings from the book “Blue Gold” from Maude Barlow and Tony Clarke (2002). The Sure-Tec.Com Team is also looking for further partners and supporters for the development of additional Sure-tec-moduls, e.g. a high tech Solar Water Destillator (SWD) prototype – that can be adapted to the conditions in the Sonora Desert in Mexico.

\* The CSE triad for reducing vital problems in South Africa; CSE: Caring-circle, Sure-tec, Eco-bridge  
For more details see the file: [Chronicle1.pdf](#).

## 3. Publications and manuscripts for seminars and lectures by G. K. Hartmann

From January 2001 till Oct. 2003 - older references can be found in the MP Ae reports and <http://www.science-softcon.de/gkhartmann/index.html> - 5. documentation.

1. Gedanken und Fragen zur Globalisierung, Report MP Ae-L-853-01-05, 2001 und (*globaltext.pdf*) 042001. (Thoughts and questions with respect to globalization)
2. Teamarbeit bedeutet Gemeinsamkeit und Arbeitsteilung, Report MP Ae-L-853-01- 07, 2001 und (*team412.pdf*) 072001.(Teamwork needs common interests and division of labour)
3. Es darf gelacht werden! Über das Lachen in Philosophie und Religion, August 2001, (*Christoph2.pdf*) 082001. (We may laugh: About laughing in philosophy and religion)
4. The DUST-2 CD ROM: Background and progress towards an ADLATUS interface atmosphere and an ADLATUS interface drinking water”, Seminar at Berkeley University, Ca., 112001.
5. Philosophy of Science: The European origin and crisis of empirical science" (*III1.pdf*) 112001.
6. Wenn Selbstverständliches und Selbstverständnis fragwürdig werden: Bemerkungen zu einem universalen Weltethos (*Ethikrecht.pdf*) 022002. (When self-evident and understanding of the self become questionable. Remarks to a universal world ethos).
7. Pilotstudienvorschläge und Planung eines Workshops für das Deutsch Islamische Institut (DII in Celle) 042002. (*pilot study proposals and planning of a workshop for the German Islamic Institute in Celle, Germany*) See: *DIIdrinkwa.pdf*, *DIIatmos.pdf*, *DIIGISP1.pdf*
8. Gedanken zur Zeit und Zeitlichkeit; (*Zeitstoffend.pdf*) 062002. (Thought about time and temporality)
9. Space Research and the problems of data validation: Quality versus Quantity, MP Ae-L-853-02-05, 2002. 062002.
10. Bridging the digital divide by digital scientific publishing and the ADLATUS CD concept, Invited presentation at the Scientific conference in Taiz, Yemen, October 10<sup>th</sup> to 13<sup>th</sup> 2002. 102002
11. Komplementarität im Abendland und Nichtabendland, in: Interkulturelle Texte, Band 1, S. 130-152, (Hrsg. G. K. Hartmann), Copernicus GmbH, ISBN 3-936586-01-2, 2002, und (*Komplkuz1.pdf*) und Report: MP Ae-L-853-02, 2002. (Complementarity in the occident and the not occident – e.g. in Asia).
12. Time and empirical science (*timescience.pdf*) 012003.
13. Was meint der Begriff Arbeit? (*Arbeit03.pdf*) 032003. (What means the term work?)
14. Draft of an „early warning system“ (*10minex1.pdf*) 052003.
15. Unvermeidbare Ungewissheiten und vermeidbare Fehler (*ungewiss01.pdf*) 092003, (Inevitable uncertainties und avoidable faults)
16. Zur Unzeit vom Rat zum Unrat, (*unrat01.pdf*) 102003, (From advice to „garbage“ at the wrong time)

### 17. -With other co-authors:

Hartmann, G. K., J. U. Kügler, P. Belouschek, L. Weissflog, K.H. Weiler, H. Ch. Heydecke, G. Reisinger (Germany), G. S. Golitsyn, I. Granberg, N. P. Elansky, E.B. Gabunshina, V. V. Alexeev (Russian Federation), E. Putz, G. Pfister, A. Steiner (Austria) “**Desert Soil Recultivation and Monitoring**

of (phyto-) Toxicity (*DEREMOTOX*). A pilot project in three phases lasting four years“ in: S. W. Breckle, M. Veste, W. Wucherer (eds.), “Sustainable Land Use in Deserts”, pp. 329 –342, ISBN 3-5340-67762-3, Springer Verlag Berlin Heidelberg New York, 2001.

#### 4. Curriculum vitae of the author

**Gerd Karlheinz Hartmann (Dr., Prof.)**, born in 1937 in Eschwege, Germany, studied physics from 1957 to 1964 at the Georg-August-University in Göttingen, where he received his PhD. in 1967. Since 1965 he is married with Marianne Hartmann, (Panke).

Since 1965 he has worked as a scientist at the Max-Planck-Institut für Aeronomie, D-37191 Katlenburg-Lindau. For over ten years he concentrated his activities on studying the upper atmosphere using satellite (radio) beacon signals.

Since 1967 he has been dealing also with general and specialised information and documentation problems, from the viewpoint of large volumes of time dependent and space dependent data, especially of the type collected in his research projects. At present he works as a consultant on several national and international committees and holds lectures and seminars throughout Europe, and especially in the USA., in Argentina, and Chile, countries he has often visited in the course of his scientific projects.

...From 1975 to 1978 he was the provisional director of a division of the institute, the Institute for Long-term Control of Geophysical Environmental Conditions (ILKGU).

Since 1979 his main area of specialisation has been studying the lower atmosphere by means of microwave radiometry. He has been the Principal Investigator of the Millimeter Wave Atmospheric Sounder (MAS) experiment which as a joint enterprise of Germany, Switzerland, and the USA has been successfully flown as core payload of the NASA ATLAS Space Shuttle Missions (ATLAS-1 (1992), ATLAS-2 (1993), ATLAS-3 (1994); ATLAS: Atmospheric Laboratory for Applications and Science. For more information see: (<http://www.linmpi.mpg.de/english/projekte/masnew>).

Since 1980 he has been "consultant" for information problems of the Institute of Intercultural Co-operation/Intercultural Research" (ICC/IIR: Heidelberg/Zürich/Pernegg). In the 80ties he travelled on behalf of that institute to India and Asia, especially for discussing his concept of the (intercultural) information system OCIR/VIGRODOS. He participated in and contributed to international conferences on problems of intercultural understanding and co-operation.

1986 he became guest professor and guest lecturer for filter and information theory at the University of Mendoza, Argentina. This task was extended in 1988, now also including problems of conserving utilisation of the environment (sustainable development). In this context he was the international co-ordinator of the environmental program PRIDEMA started by the University of Mendoza (UM) in 1988.

1991 he became full professor at the engineering faculty of UM for "remote sensing for a conserving utilisation of the environment" (sustainable development) and also "external scientific director of the institute for environmental studies (IEMA) of UM. In December 1991 he received the Dr. Luis Federico Leloir Award for international co-operation with Argentina in the domain of environmental research from the Argentinean minister for Science and Technology, Prof. Dr. R.F. Matera.

Since 1995 he has worked on the "value added validation" of remote sensing data from the Earth's atmosphere resulting in the "DUST-2 CD ROM" and in the "MAS/GRAS follow-on proposal". He was the manager of an international experiment proposal for the investigation of the MARS atmosphere - in context with the MARS EXPRESS Mission of the European Space Agency (ESA) -, till it was cancelled because of funding problems in summer 1999. At the end of 2000 he retired from MP Ae.

Since 1965 he is married with Marianne Hartmann. His hobbies are music, philosophy and intercultural co-operation. He has the ham license DK5AV.

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## **5. Solar Reflector Water Destillation (SRWD) in the Sonora Desert for the Tohona O’odham and other indigenous people. A pilot project proposal**

G. K. Hartmann, H-G. Flepp, K. C. Hsieh et al.<sup>2</sup>  
First draft March 2003, updated in October 2003

### **Purpose:**

To provide technical and material assistance to the Sonoran O’odham and other indigenous people and to the Buquivaba Clinic in Magdalena de Kino, Mexico; and in return, receive knowledge of healing methods of the indigenous people of Mexico. The exchange is based on barter.

Remark: After two visits in Tucson, Arizona (Nov. 2001 and February 2003) and intensive discussions with friends, colleagues, Tohono O’odham indigenous people of the Sonoran Desert, and after further discussions with the sure-tec.com team members in Europe the pilot project has been drafted and structured in three parts, so that fund-raising and support can be channelled in a less complicated (unbureaucratic) manner:

### **Part I**

Optimisation of the already existing and successfully implemented two prototypes of a Solar Reflector Cooker (SRC) with automatic solar tracking for the use as water destillator and the adaptation to the conditions in the Sonora Desert. Technical lead: Prof. Dr. K.-H. Weiler, University Emden together with University of Arizona (UA) at Tucson and/or or a university in Mexico, further with the sure-tec.com team (Europe) and “ECCO” at Tucson (William “Sky” Crosby) – negotiations have been started.

#### *Remark*

*During sunshine the small SRC has an output of about 1.3 kW, the big SRC about 3 kW.*

### **Part II**

Assembling a small and/or a big SRC at the ranch of Wenceslao Monroy at Magdalena de Kino in Mexico - provided that the technical conditions are sufficient - to be used in Obregon and/or at the Buquivaba Clinic. Technical lead: Prof. Dr. K.-H. Weiler and relevant engineer(s). Further co-operating partners: The Sonora Traditional Indian Council (Magdalena de Kino), the O’odham Communities Human Rights Foundation (Tucson) – both tax exempt institutions and represented by their project co-ordinator, Ron Rosenberg (Buquivaba Clinic [buquivaba@hotmail.com](mailto:buquivaba@hotmail.com)), the Sure-Tec.Com Team (Dr. G. K. Hartmann (PI), St. Michael & All Angels Episcopal Church, Tucson, (Prof. Dr. K. C. Hsieh et al.), ECCO (William Crosby), Garth and others – like doctors for Global health. Negotiations for a possible partnership with the Mexican University of Sonora DICTUS have been positively started in September through Ron Rosenberg.

*(To be completed and/or corrected by Ron Rosenberg and partners in Magdalena and Tucson as well as in Europe in the course of the year 2003)*

### **Part III**

Test of a small – 2 to 3 square meter - solar water destillator, a high tech prototype device by BSR Solar Technologies GmbH in Loerrach, Germany, likely accompanied by a low temperature prototype solar stirling water pump. (To be corrected and complemented by BSR in the course of the year 2003)

#### *Remark:*

*Fund-raising and material support can or should be done separately for each part.*

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