

Djursholm 12/1/75

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To the Academy of Engineering Sciences;

To receive the gold medal award of the academy for 1976 the undersigned propose the fellow of the academy, Mr Waloddi Weibull.

To explain the reasoning for this recommendation, I would like to bring forward the following. Weibull's most well known achievement is within the area of statistical measuring techniques for detonation and the strength of materials, especially statistical fatigue analysis.

Among Weibull's earlier work can be mentioned inventions and constructions, for example the electric hammer, which indeed performed the function it was announced to perform but still did not become a real success, due in large part to the prevailing state of technology at the time of the invention. However, the hammer does provide an early example of the inventor's skills as it was a forerunner to the later times draft (outline/sketch) of the electric motor. Of lasting value was Weibull's work in the field of detonation, for example, formulas for explosive effects under water. Of significance to the fields of Geology and Climatology have been his method, by echo effect of a local detonation to measure the thickness of sedimentary strata on the floor of the sea, performed in the Mediterranean Sea in cooperation with Dr. Hans Pettersson during the early 1950's. Weibull was one of the first to use electronic measuring methods on mechanical engineering problems.

In the end of the 1930's he developed his statistical theory of the mechanics of materials with brittle (fragile) materials, which was the origin of the now well known Weibull's distribution function. In the early 1950's Weibull was awarded a research contract with the U.S. Air Force. These contracts were regularly renewed until 1973 and represented a total of approximately 20 years of research. They were discontinued long after other similar Swedish contracts were terminated.

Since the completion of his work with the U.S. Air Force, Weibull has been diligently occupied with work from FOA-HE2 to compose a book with the title "New Aspects and Methods of the Statistical Analysis of Test Data with Special Reference to the Normal, The nLog-Normal, and the Weibull Distribution". In this connection similarly new coherences and views has arrived here in ( are included there in).

One ought to keep in mind that Mr Weibull had his 88'th birthday in June of this year. His most important publications are listed in appendix 1 and 2, compound merit list by him circa 1973, the original enclosed a suggestion (recomendation) to award him the Thulin Medal for 1975. Weibull recieved the American Society of Mechanical Engineers medal 1972, "in recognition of eminently distinguished engineering achievement". On the medal is inscribed "Pioneer in Study of Fracture, Fatigue and Reliability". See appendix 3 for the above suggested award for the Thulin Medal for 1975.

Djursholm as sited above  
Folke K. G. Odqvist  
Fellow of IVA VII

encl. appendix

## Biographical data

Weibull, Ernst Hjalmar Waloddi Dr.. Born in Vittskovle, Kristianstad 1887 6/18. Father Richard Ludvig Filip Weibull, "gods forvaltare" (Baron/Kings agent/Landed gentry) and Gerda Sofia Augusta Holmberg. Married in Sorruna Stockholm 1912 with Karin Sofia Ewe, born in Kristianstad 1890 9/10, daughter to director Edward Wilhelm Ewe (Fellow of the Swedish Technological Society) and Anna Raghild Johannessen.

Children- Hans Richard Waloddi, born 1912, technician, Erik Rudolph Waloddi born 1914, Officer, Karin Wiwica, born 1915, Jan Wilhelm Waloddi born 1918, Bengt Waloddi born 1920, Torsten Waloddi born 1922.

Maturity degree "Mogenhets examen" Kristianstad 1904, Officer degree 1907, 2nd Lieutenant 1907, 1st Lieutenant 1909, completed the course for naval officers with the King's Technical Institution (University) 1909-11, The Kings Naval Academy 1911-12, continued education during sea duty in mining 1912-13, BA/MS degree 1912. Captain at the Naval Forces 1916, resigned 1916. Employed by Patent and Statistical Department and at Experiments Department at "Nordiska Kullagen AB" (known for explosives) in Gothenborg, and later as a Vice President of the same company 1916-21. Research work at "Metalbanken" and "Metalurgische Gesellschaft" Frankfurt Germany 1921. Obtained the Doctorate Degree in "Machine Element" (Mechanical Engineering) at the King Technology Acedemy 1923, "Fil Lic" degree 1924, Doctorate in Machine element the King's Academy 1924, Consulting engineer at "AB Svenska Kellagerfabriken" (known for explosives) 1924-34. Independent consultant 1924- . Prorctor (vice chancellor) at the Kings Technical Institution 1931. Has developed numerous inventions within roller bearing and ball bearing branch, electric percussion instruments and measuring techniques. The Swedish State Delegat at the World Strength Conference in Tokyo 1929. Appointed special competency Doctorate of Aeronautical Technics (Aeronautical engineer) Kings Technical Academy 1929. Member of the committee for reorganization of "Patent och Registerings-Verket" (Inventions & Patent Co) 1930. Secretary General for the III International Congress for Mechanical Engineering 1930. Chairman of Swedish Machine Industry Association Standards Committee 1926-31. Member of administrative committee (Board Member) for "Svenska Hammar AB" from 1930. Honorary Doctorate from the University of Uppsala 1932. Fellow of the Academy of Engineering Science (LIVA) 1927. Correspondent member of "Orlogsmanna sallskapet" LOS (Battle fleet association), Knight at "Nordstjarneorden" RNO 1933. Academy of Science "Wallmarkska Award " 1934. Published numerous outstanding articles in technical journals. Fellow(member) of Swedish Technology Association, LSTF 1918. (Note: Member of Swedish Technology Association, carries the name from father, stepfather and the son or stepson shows that the person is a member of LSTF, or that he has been a member of LSTF. Biographies exists for persons who have the title "Fellow of Swedish Technology Association") Mem-

ber(Chairman) of the committee for technical education 1926, and  
Mechanical Engineering 1927-29.

Trans: Inga Nilson Kessler

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**See appendix 3 regarding the English version about W. Weibulls work**

**Best regards,  
Stig Elg**