

WILLIAM L. FOURNEY

Associate Dean and Chairman of Aerospace Engineering
Professor of Mechanical Engineering
University of Maryland, College Park, MD
4/3/06

W. L. (Bill) Fourney is currently Chairman of Aerospace Engineering at the University of Maryland. He holds a joint appointment in both the Mechanical Engineering and the Aerospace Engineering Departments. He received his BS in Aerospace Engineering and his MS in Theoretical and Applied Mechanics from West Virginia University. His PhD in Theoretical and Applied Mechanics was received from the University of Illinois in 1966.

His areas of research interest are in experimental mechanics and fracture mechanics - primarily from a dynamic aspect. He has published approximately 200 articles describing the results of his research in dynamic fracture and crack arrest including approximately 40 reports to the sponsors of his research. His research has been sponsored by NSF, AFOSR, ONR, NRC, DOE, Oak Ridge National Labs, Los Alamos National Labs, and the US Bureau of Mines. His level of funding for the current year is \$200,000.

He has served as a consultant for Gillett Research Labs, Versar, Allegheny Ballistics Lab, Harry Diamond Labs, Los Alamos National Labs, and SAIC. He is active in the Society for Experimental Mechanics (SEM) and the International Society for Explosives Engineering (ISEE). In SEM he has been elected to fellow grade membership. Within ASTM he served as Chairman of the Crack Arrest Technical Committee. Within ISRM he was President of the Commission of Fragmentation by Blasting and is North American Editor of FRAGBLAST (International Journal on Fragmentation and Blasting). Recently the group that he chairs has switched affiliations from ISRM to ISEE. The name of that group is the Committee of Fragmentation by Blasting and is a Section within ISEE. He is also a member of the American Society for Testing Materials (ASTM), the American Society for Mechanical Engineers (ASME), the American Society for Engineering Education (ASEE), the American Society for Aeronautics and Astronautics, and the American Helicopter Society.

In 1975 he was elected as co-chairman of an ASTM task force on dynamic testing. His half of that task force was given the challenge of developing a standard for crack arrest testing. This was a very controversial topic with one faction maintaining a need for true dynamic testing with complicated computer code usage and a second, equally influential faction pushing for a simpler method based upon measurements made before crack initiation and after crack arrest. It took 13 years including two round robins to develop and prove that the simple method could give dependable results. This method remains the only standard on crack arrest testing.

From 1988 through 1994, he devoted most of his service time to SEM. He has served on two Future Directions Committees, has co-chaired the Fracture Mechanics Division, been a longtime member of the Optics Division, served for a number of years as Associate Editor of Experimental Mechanics, and chaired or served on a number of ad hoc committees. Since he has served as National President (1990-1991) there were also a succession of committees that he chaired or been a member of along the way, such as the Honors Committee, The Technical Divisions Committee, and the Finance Committee. He has also been responsible for organizing and chairing a number of technical sessions for SEM through the years.

Over the past 19 years he has become very involved in the formation of a new organization and a journal in the area of dynamic fracture and fragmentation. He is President and cofounder of an ISRM Commission on Fragmentation and Blasting which sponsors an international conference every three years. Since the second conference in the series which he organized and hosted in the U.S. he has been the chairman of the group that has organized successful meetings in Australia, Austria, Canada, South Africa, and China. A new journal FRAGBLAST was begun five years ago and is now recognized as the place to look for papers involving blasting and fragmentation. He and a colleague have been the ones who have spearheaded the development of this journal which is now subscribed to worldwide.

His teaching has primarily been at the undergraduate level – although in the years before becoming Chairman of the Mechanical Engineering Department (1982) he regularly taught graduate courses in elasticity, continuum mechanics, experimental stress analysis, and instrumentation. At the undergraduate level his favorite topics are statics and strength of materials. He was responsible for introducing the use of undergraduate teaching fellows and the team concept for both homework and laboratory reports in a junior level mechanics course at Maryland. Over the period of approximately 2 years he found that the teaching fellows upon becoming a part of the teaching side viewed their own education from an entirely different side. Of the 10 teaching fellows employed during that timeframe 8 later decided to go on for and completed an advanced degree. More recently he has been working with others at the University of Maryland to integrate the statics and strength of materials course (second semester freshman and first semester sophomore level) into a year-long course which is based upon a design project. The project (either a bridge or a crane) is paper designed during the first semester and is built, instrumented, and tested during the second semester.

He is very actively involved in committee work on campus. He serves on the Teaching Facilities Council, The Facilities Advisory Council, and the Operations Committee for the UMCP Campus. He is faculty advisor for Tau Beta Pi and Omicron Delta Kappa. Over the past five years he has served on or chaired an average of 10-15 committees per year at the College, Department, or Campus level.

Date of Birth : May 28, 1939

Citizenship : U.S.A

EDUCATION

B.S. in Aerospace Engineering, West Virginia University, 1962

M.S. in Theoretical & Applied Mechanics, West Virginia University, 1963

Ph.D. in Theoretical & Applied Mechanics, University of Illinois, 1966

ACADEMIC EXPERIENCE

- Sept. 1998 – Present Associate Dean
A. James Clark School of Engineering
University of Maryland at College Park
- Sept. 1995 – Present Director of Facilities
A. James Clark School of Engineering
University of Maryland at College Park
- August 1994 - Present Chairman
Aerospace Engineering Department
University of Maryland at College Park
- August 1991 - Present Professor
Mechanical Engineering Department
University of Maryland at College Park
- July 1, 1984 - August 1991 Program Director
Mechanical Engineering Department
Established Program & Faculty
University of Maryland at Baltimore County
- August 1982 - August 1991 Professor and Chairman
Mechanical Engineering Department
University of Maryland at College Park
- June 1974 - August 1982 Professor
Mechanical Engineering Department
University of Maryland at College Park
- Sept. 1969 - June 1974 Associate Professor
Mechanical Engineering Department
University of Maryland at College Park
- Sept. 1966 - June 1969 Assistant Professor
Mechanical Engineering Department
University of Maryland at College Park

NON-ACADEMIC EXPERIENCE

Jan. 1992 -	Sept. 1992	Sabbatical Leave with Los Alamos National Laboratories, Los Alamos, New Mexico
Aug. 1981 -	Aug. 1982	Sabbatical year with Science Applications Inc. Steamboat Springs, Colorado
June 1967 -	Sept. 1967	Engineer, Naval Research Laboratory, Washington, DC
June 1965 -	Sept. 1965	Engineer, Mathematical Sciences, Inc., Seattle, Washington
June 1964 -	Sept. 1964	Aero Engineering, Wright-Patterson AFB, Dayton, OH
June 1962 -	Sept. 1962	
June 1961 -	Sept. 1961	Engineering Aide, Boeing Aircraft Company, Seattle, WA
June 1960 -	Sept. 1960	Research Assistant, Photoelasticity Lab, California Institute of Technology Pasadena, California
June 1959 -	Sept. 1959	Engineering Aide, G.E. Co., Jet Engine Department

PROFESSIONAL AREAS OF INTEREST

Experimental Stress Analysis: Photoelasticity, holography, instrumentation
Fracture Mechanics: Fast fracture testing procedures
Rock Mechanics: High Loading Rates Dynamic Studies (Explosive Loading)

PROFESSIONAL SOCIETY ACTIVITIES

Member, ASTM

Chairman, Task Group ASTM E24.03.04, Dynamic Testing-Crack Arrest 1975-1988.

Task Group Developed Standard E1221.

Member of SEM

Associate Editor of Experimental Mechanics 1978-1980

Executive Board Member 1984-86/1988-1994

Chair Ad-Hoc Committee to Review National Meeting Format

Chair Ad-Hoc Committee to Review Fellows Committee Procedures

Vice Chairman of Fracture Division 1984

Chairman of Division Council 1984-86

Chairman of Editorial Council 1988-90
Vice President 1989-90, President Elect 1990-91, President, 1991-92

Member of ASME, AIAA, AHS

Member of International Society of Rock Mechanics

Chairman of ISEE Committee on Fragmentation by Blasting

Member of International Organizing Committee on 2nd International Conference
on Fragmentation by Blasting

Chairman of National Organizing Committee on 2nd International Conference on
fragmentation by Blasting

Chairman of International Organizing Committee on 3rd International Conference
on Fragmentation by Blasting

Member of International Organizing Committee on 4th International Conference on
Fragmentation by Blasting

Member of International Organizing Committee on 5th International Conference on
Fragmentation by Blasting

Member of International Organizing Committee on 6th International Conference on
Fragmentation by Blasting

Member of International Organizing Committee on 7th International Conference on
Fragmentation by Blasting

Member of International Organizing Committee on 8th International Conference on
Fragmentation by Blasting

Member of International Organizing Committee on 9th International Conference on
Fragmentation by Blasting

University of Maryland Liaison Professor to the National Institute of Aerospace
Chaired Task Force to Write NIA Workforce Development Plan for Aeronautics

West Virginia University, Member Advisory Committee - Mechanical and Aerospace
Engineering Department.

Virginia Tech, Member Advisory Committee – Aerospace & Ocean Engineering
Department.

U. S. Naval Academy, Member Visiting Committee – Aerospace Engineering
Department.

HONORS AND AWARDS

Member: Pi Tau Sigma, Tau Beta Pi, Sigma Gamma Tau, Sigma Xi, Omicron Delta
Kappa, Phi Delta Phi

Fellow of SEM

Charter Member, Academy of Distinguished Alumni-WVU Aerospace Engineering
Clifford L. Sayre Teaching Award – 1995

Pi Tau Sigma Teaching Award – 1995

AIAA and Sigma Gamma Tau Appreciation Award – 1996

Outstanding Teaching Award UMCP – 1996

Outstanding Contributions to Seniors UMCP – 1995
Outstanding Educator Award Nominee Md. Assoc. for Higher Education – 1996
Outstanding Service Award – A. James Clark School – 1997
SEM 2000 Tatnall Award “Long & Dedicated Service to SEM”.
Professor of the Year Award – Aerospace Engineering Department 2001.
Outstanding Service Award – A. James Clark School – 2004
Mentor of the Year Award – Aerospace Engineering Department - 2004
Mentor of the Year Award – Aerospace Engineering Department – 2006
Named as one of six Keystone Professors within A. James Clark School of Engineering -
2006- 2009

TECHNICAL WRITINGS:

CHAPTERS IN BOOKS:

1. "Dynamic Photoelasticity and Holography Applied to Crack and Wave Propagation", with H.P. Rossmannith, Rock Fracture Mechanics, pp. 209-228,1983.
2. "Fracture Control Blasting", Rock Fracture Mechanics, Springer-Verlag, pp. 301-319, 1983.
3. "Fragmentation Studies with Small Flaws", Rock Fracture Mechanics, Springer-Verlag, pp. 322-340, 1983.
4. "Fragmentation Studies with Large Flaws", Rock Fracture Mechanics, Springer-Verlag, pp. 341-352, 1983.
5. "Gas Well Stimulation Studies", Rock Fracture Mechanics, Springer-Verlag, pp. 353-382, 1983.
6. "Model Studies of Fragmentation", with D.C. Holloway and D.B. Barker, Chapter 8, Mechanics of Oil Shale, Edited by K.P. Chong and J.W. Smith, Elsevier Applied Science Publishers, pp. 337-388, 1984.
7. "Problem areas in Modified In Situ Fragmentation Blasting", with C. Young and R.D. Dick, Fragmentation by Blasting, pp. 129-146. Published by SEM, 1985
8. "Fragmentation Studies in Jointed Brittle Materials", with D.C. Holloway, W.H. Wilson and D.B. Barker, Fragmentation by Blasting, Published by SEM, pp.73-87, May 1985.
9. "Crack Arrest Toughness of Ferritic Materials", Metals Handbook Ninth Ed., ed by J.R. Newly, et al., pp. 288-293, ASM Metals Park, OH, 1985.
10. "Mechanisms of Rock Fragmentation by Blasting", Comprehensive Rock Engineering Principles, Practices and Projects, J. A. Hudson, Editor-in-Chief, Pergamon Press, Vol. , Pergamon Press, pp 39-70 (1993).
11. "Explosive Fragmentation", Shock Compression of Condensed Matter, Volume IV, Editor R. A. Graham, Volume Editors - Lee Davison, Denis E. Grady, and M. Shahinpoor, Springer-Verlage, 1995.

TECHNICAL JOURNAL ARTICLES:

- 1."Residual Stress in a Wound Filament Ring", Journal of Composite Materials, 1968, Vol. 2, pp. 408-411.
- 2."Stability of a Finitely Deformed Thin Cylindrical Shell", with M. Stern International Journal of Engineering Solids, 1968, Vol. 6, pp. 661-683.

3. "Normal Mode Theory for Combined Structures", with G.J. O'Hara, *Journal of the Acoustical Society of America*, 1968, Vol. 44, pp. 1220-1224.
4. "Further Results on the Stability of a Finitely Deformed Thin Cylindrical Shell", with M. Stern, *Int. Journal of Engineering Science*, 1972, Vol. 10, pp. 613-622.
5. "Four Exposure Holographic Moire Technique", with V.K. Der and D.C. Holloway, *Applied Optics*, 1973, Vol. 12.
6. "Dynamic Modulus and Damping in Graphite Composites", with J. Poesch, *Journal of Composite Materials*, 1973, Vol. 13.
7. "A Technique for Reducing the Fringe Frequency in Large Displacement Holography", with V.K. Der and D.C. Holloway, *Experimental Mechanics*, July 1974, Vol. 14, No. 7, pp. 286-289.
8. "Stress Wave Propagation from Induced Line Charges Near a Bench Face", with J.W. Dally and D.C. Holloway, *International Journal of Rock Mechanics and Mining*, 1974, Vol. 11, pp. 393-401.
9. "Influence of Containment of the Bore Hole Pressures on Explosive Induced Fracture", with J.W. Dally and D.C. Holloway, *International Journal of Rock Mechanics and Mining*, 1975, Vol. 12, pp. 5-12.
10. "Fracture Initiation and Propagation From a Center of Dilatation", with J.W. Dally and D.C. Holloway, *International Journal of Fracture*, December 1975, Vol. 11, No. 6, pp. 1011-1029.
11. "Influence Du Confinement des Pressions Dens un Fourneau Sur la Fissuration Provoquee Par Explosives", *Explosifs*, No. 3, June-Sept. 1976. French translation of paper that appeared in *International Journal of Rock Mechanics and Mining*, 1975, Vol. 12, pp. 5-12.
12. "Attenuation of Strain Waves in Core Samples of Three Types of Rocks", with J.W. Dally and D.C. Holloway, *Experimental Mechanics*, April 1976, Vol. 16, No. 4, pp 121-126.
13. "Application of Holographic Interferometry to a Study of Wave Propagation in Rock", with D.C. Holloway and A.M. Patacca, *Experimental Mechanics*, August 1977, Vol. 17, No. 8, pp 281-289.
14. "A Dynamic Photoelastic Evaluation of Some Current Practices in Smooth Wall Blasting", *Mining Engineering*, February 1978, pp. 184-189.
15. "Direction-Sensitive Displacement Analyses by Multiple Frequency Holographic Interferometry", with D.C. Holloway and A.M. Patacca, *Applied Optics*, March 1978, Vol. 17, pp 121-129.
16. "Fracture Control in Tunnel Blasting", with D.B. Barker and J.W. Dally, *Tunneling and Underground Structures*, *Transportation Research Record 684*, *Transportation Research Board*, 1978, pp. 8-14.
17. "Blasting Parallel Hole Cuts with Fracture Plane Control", with D.B. Barker and J.W. Dally, *Tunnels and Tunnelling*, May 1978.
18. "Controlled Blasting with Ligamented Charge Holders", with J.W. Dally and D.C. Holloway, *International Journal of Rock Mechanics and Mining Sciences*, May 1978, Vol 15, pp 121-129.
19. "Influence of Loading System on Crack Propagation and Arrest Behavior in DCB Specimens", with T. Kobayashi, also presented at 11th National Symposium on Fracture Mechanics, June 1978. *ASTM STP 678*, pp. 47-59.
20. "Critical Examination of BCL Crack Arrest Toughness Measurement Procedure", also presented at Symposium on Crack Arrest Methodology and Applications, November 1978. *ASTM STP 711*, pp. 270-288.

21. "On the Determination of the a - K Relationship for Birefringent Polymers", with Irwin, et. al., *Experimental Mechanics*, Vol. 19, No. 4, 1979, pp121-128.
22. "Crack Tip Position and Speed as Determined from Rayleigh-Wave Patterns" with H.P. Rossmannith, *Mechanics Research Communications*, Vol. 7, No. 5, pp. 277-282, 1980.
23. "A Numerical Model of Explosively Driven Crack Propagation in Brittle Materials", with F.P. Stecher, *Int. Journal of Rock Mechanics and Mining Sciences*, Vol. 18, No. 1, 1981, pp. 23-33.
24. "Model Studies of Explosive Well Stimulation Techniques", with D.B. Barker and D.C. Holloway, *International Journal of Rock Mechanics and Mining Sciences*, Vol. 18, No. 2, 1981, pp 113-127.
25. "The Reciprocal Character of Rayleigh Waves and Cracks", with H.P. Rossmannith, *Rock Mechanics*, Vol. 14, 1981, pp 37-42.
26. "Energiewirtschaftliche Aspekte der Felsbruchmechanik", with H.P. Rossmannith, *Energie*, Vol. 2, 1981. ?????
27. "Model Studies of Explosive Well Stimulation Techniques", with D.B. Barker and D.C. Holloway, *Explosifs*. French translation of paper that appeared in *International Journal of Rock Mechanics and Mining Sciences*, Vol. 18, No. 2, 1981, pp. 113-127.
28. "Determination of Crack Speed History and Tip Locations for Cracks Moving with Non-Uniform Velocity", with H.P. Rossmannith, *Experimental Mechanics*, March 1982, pp 111-116.
29. "On Crack Tip Acceleration and Deceleration", with H.P. Rossmannith, *Engineering Fracture Mechanics*, Vol. 16, No. 6, 1982, pp 837-844.
30. "Fracture Initiation and Stress Wave Diffraction at Cracked Interfaces in Layer Media I - Brittle/Brittle Transition", with H.P. Rossmannith, *Rock Mechanics*, Vol. 14, 1982, pp. 209-233.
31. "Model Studies of Well Stimulation Using Propellant Charges", with D.B. Barker and D.C. Holloway, *International Journal of Rock Mechanics and Mining Sciences*, Vol. 20, No. 2, 1983, pp. 91-101.
32. "Influence of Specimen Size and Stress Field on Energy Loss During a Fracture Event", with A. Shukla, also presented at *Fracture Mechanics: Fourteenth Symposim - Volume I: Theory and Analysis*, ASTM STP 791, 1983, pp. 151-164.
33. "Mechanisms of Energy Losses During Fracture of Homalite 100", with A. Shukla, *Engineering Fracture Mechanics*, Vol. 19, No. 2, pp. 251-259, 1984.
34. "Investigation of Stress Wave Propagation Through Intersecting Bars", with K.R.Y. Simha, *Journal of Applied Mechanics*, Vol. 51, 2, June 1984, p. 345-353.
35. "Explosively Driven Crack Propagation Across an Interface", with A. Shukla, *International Journal of Rock Mechanics and Mineral Sciences & Geomechanics*, Vol. 22, No. 6, pp. 443-451, December 1985.
36. "On the Uniqueness of the Stress Intensity Factor-Crack Velocity Relationship", *International Journal of Fracture*, Vol. 27, pp. 159-168, 1985.
37. "Dynamic Photoelastic Investigation of Two Pressurized Cracks Approaching One Another", with K.R.Y. Simha, D.B. Barker and R.D. Dick, *Eng'g. Fracture Mechanics*, Vol. 23, No. 1, pp. 237-251, 1986.
38. "Obstacles Encountered in VMIS Retort Blasting" with R.D. Dick and C. Young, *Insitu*, Vol. 10, No. 3, 1986, pp. 253-275.

39. "Model Investigation of Wellbore Pressure Distribution in Stem-Induced Fracturing", with D.C. Holloway and K.R.Y. Simha, SPE Production Engineering, also presented at Unconventional Gas Recovery Symposium, Nov. 1987, pp. 243-250.
40. "A Method for Determining the Crack Arrest Toughness of Ferretic Materials", with D.B. Barker, R. Chona, W.R. Corwin, G.R. Irwin, C.W. Marshall, A.R. Rosenfield and E.T. Wessel., ASTM STP 969, 1988, pp. 569-593, also presented at Nineteenth National Symposium on Fracture Mechanics.
41. "Model Study of Crater Blasting", with R.D. Dick and K.R.Y. Simha, Rock Mechanics and Rock Engineering 21, pp. 183-205, 1988.
42. "Use of Explosives on the Moon", with R.D. Dick, D. Goodings, C. P. Lin, & L. E. Bernold, ASCE Journal of Aerospace Engineering, Vol. 5, No. 1, pp. 59-69, 1992.
43. "Modelling the Effects of Chemical Explosives for Excavation on the Moon", with D. Goodings, S.P. Lin, L. Bernold, and R.D. Dick, ASCE Journal of Aerospace Engineering, Vol. 5, No. 1, pp. 44-58, 1992.
44. "Fragmentation Mechanism in Crater Blasting", with R.D. Dick, X.J. Wang, and Y. Wei, International Journal of Rock Mechanics and Mining Sciences, Vol 30, No. 4, pp 413-429, 1993.
45. "Model Studies of the Effects on Lunar Soil of Chemical Explosives", with C.P. Lin, D.J. Goodings, L.E. Bernold, and R.D. Dick, ASCE Journal of Geotechnical Engineering, Vol. 120, No. 10, pp. 1684-1703, 1994.
46. "Response of Oil Shale to Fragmentation by Cylindrical Charges", with R.D. Dick and C. Young, Journal of Rock Mechanics and Rock Engineering, Vol. 28, No. 1, 1995.
47. "The Utilization of Explosive Loading as an NDE Tool in Geologic Materials", with R.D. Dick, International Journal of Solids and Structures, Vol. 32,, No. 17/18, pp. 2511-2522, 1995.
48. "Effects of Weak Layers on Particle Motion Measurements," with R.D. Dick, S.J. Wang and T.A. Weaver, Journal of Rock Mechanics and Rock Engineering, Vol. 30, No. 1, pp. 1-18, 1997.
49. "Effects of Open Gaps on Particle Motion Measurements," with R.D. Dick, X.J. Wang and T.A. Weaver, Journal of Rock Mechanics and Rock Engineering, Vol. 30, No. 2, pp. 95-111, 1997.
50. "Displacement of Sand and Obstacles Under standing Water with Explosives," with R. Randles and R.D. Dick, The International Journal for Blasting and Fragmentation, Vol. 1, No. 4, pp. 393-416, 1997.
51. "Response of NTS Tuff to High Strain Rate Loading," with R.D. Dick, and John D. Williams, The International Journal for Blasting and Fragmentation, Vol. 1, No. 3, pp. 285-304, 1997.
52. "In-fiber Doppler Velocimeter for Velocity Measurements of Moving Surfaces," with Lo, Y.L. and J.S. Sirkis, Experimental Mechanics, Vol. 37, No. 3, pp. 328-332, 1997.
53. "Development of an optical fiber strain sensor for explosively generated stress wave propagation applications", with Y. Lo and J. S. Sirkis, The International Journal for Blasting and Fragmentation, Vol. 1, No.4, pp. 471-486, 1997.
54. "A Procedure for Fracture Toughness Testing Using a Chevron-Notched Crack Arrest Specimen", with Bonenberger, R. J. and Dally, J. W., Journal of Testing & Evaluation, 1998.

55. "Underwater cratering and channeling with explosives", with L. Taylor and D. Robeson, The International Journal for Blasting and Fragmentation, Vol. 3, No. 2, pp. 165-183, 1999.
56. "Design-Based Course Sequence in Statics and Strength of Materials", with P. Chang, International Journal of Engineering Education, Vol. 16. Number 5, 2000
57. "Visualization of Cratering in an Underwater Environment" by W. L. Fournery, D.J. Goodings, R.J. Bonenberger, and H. U. Leiste, The International Journal of Blasting and Fragmentation, 2002, Volume 6, Number 1.
58. "Wave Separation in Viscoelastic Pressure Bars Using Single-Point Measurements of Strain and Velocity" by D. T. Casem, W. L. Fournery, and P. Chang, Polymer Testing 22, (2003) pg 155-164.
- 59 "A Polymeric Split Hopkinson Pressure Bar Instrumented with Velocity Gages", by D. T. Casem and W. L. Fournery, and P. Chang, Experimental Mechanics, Vol 43-Number 4, December, 2003.
60. "Explosive Impulse on Plates", W.L. Fournery, Uli Leiste, R. Bonenberger, & D. Goodings, FRAGBLAST International Journal on Fragmentation and Blasting, 2005, Vol. 1, pp 1-18.
61. "Mechanism of Loading on Plates Due to Explosive Detonation", by W.L. Fournery, Uli Leiste, R. Bonenberger, & D. Goodings, FRAGBLAST International Journal on Fragmentation and Blasting, 2006, Vol. 1.
62. "Borehole Pressures in an Air Decked Situation", by W. L. Fournery, Stefan Bihr, & Uli Leiste FRAGBLAST International Journal on Fragmentation and Blasting, 2006, Vol. 3, pp 1-18.

PAPERS IN PROCEEDINGS:

- 1."Dynamic Photoelastic Investigation of Crack Propagation", with T. Kobayashi, Proceedings of Society of Engineering Sciences, 1975.
- 2."Stress Wave and Fracture Propagation from a Contained Explosive Charge Near a Free Boundary", with J.W. Dally and D.C. Holloway, Proceedings of Society of Engineering Sciences, 1975.
- 3."Controlled Blasting With a Ligamented Split-Tube Charge", with J.W. Dally and D.C. Holloway, Proceedings of 17th U.S. Symposium on Rock Mechanics, August 1976.
- 4."Large Deflections of Cantilevered Rods Under Distributed Loads", with M.A. Schrodell, Proceedings of the 8th Southeastern Conference on Theoretical and Applied Mechanics, 1976.
- 5."Fracture Control in Construction Blasting", with J.W. Dally, Proceedings of the 18th U.S. Symposium on Rock Mechanics, June 1977.
- 6."An Investigation on Ground Motions from Blasting Through the Use of Holographic Interferometry", with D.C. Holloway, Proceedings of the 18th U.S. Symposium on Rock Mechanics, June 1977.
- 7."Fragmentation in Flawed Models", with J.W. Dally, Proceedings of the 6th International Colloquium on Gas Dynamics, August 1977.
- 8."On the Dynamic Behavior of Crack Propagation in DCB Specimens", with J.W. Dally and T. Kobayashi, Proceedings of the Society of Engineering Sciences, 1977.
- 9."Application of Dynamic Photoelasticity to Excavation Technology", with J.W. Dally and D.C. Holloway, Recent Advances in Engineering Science, 1977, Vol. 7, pp. 19-28.

10. "Dynamic Fracture Toughness Determination from Isopachics of a Running Crack", with V.K. Der and D.C. Holloway, Sixth International Conference for Experimental Stress Analysis, 1978.
11. "The Role of Stress Waves in Rock Fragmentation", with D.B. Barker and J.W. Dally, 19th U.S. Symposium on Rock Mechanics, May 1978.
12. "Influence of Specimen Geometry on Crack Propagation and Arrest Behavior", with T. Kobayashi and J.W. Dally, Sixth International Conference for Experimental Stress Analysis, 1978
13. "Experimental Characterization of the Development of the Micro-Crack Process Zone at a Crack Tip in Rock Under Load", with T. Kobayashi, 19th U.S. Symposium on Rock Mechanics, May 1978.
14. "Photoelastic Investigation of Explosive Induced Fragmentation on Multiply Flawed Models", with D.B. Barker and D.C. Holloway, Proceedings of 1979 SESA Spring Meeting, San Francisco, California, May 1979.
15. "Dynamic Crack Propagation in Rock", with D.C. Holloway, D.B. Barker and T. Kobayashi, Proceedings of 1979 SESA Spring Meeting, San Francisco, California, May 1979.
16. "Examination of Micro-crack Process Zone in Pink Westerly Granite", with T. Kobayashi and D.C. Holloway, Proceedings American Ceramic Society Annual Meeting, Cincinnati, Ohio, May 1979.
17. "Controlled Blasting Experiments at Porter Square Pilot Tunnel", with P.E. Sperry, D.E. Thompson and A.F. McKown, Rapid Excavation Tunnelling Conference, Atlanta, Georgia, June 1979
18. "The Influence of Stress Waves on Explosive Induced Fragmentation", with D.B. Barker and D.C. Holloway, Proceedings of 20th Symposium on Rock Mechanics, Austin, Texas, June 1979.
19. "Effects of Joints on Fragmentation and Delay Times in Explosively Loaded Models", with D.B. Barker and D.C. Holloway, Engineering Sciences, 1979.
20. "Dynamic Crack Propagation in Rock Plates", with D.B. Barker and D.C. Holloway, Proceedings of the 21st U.S. Symposium on Rock Mechanics, May 1980.
21. "Comparisons of Stress Intensity Factors from Isochromatics, Isopachics and Caustics", with D.B. Barker and D.C. Holloway, Proceedings of the Society for Experimental Stress Analysis, May 1980.
22. "Mechanisms of Energy Loss During Fracture Process", with A. Shukla and J.W. Dally, Proceedings of the Society for Experimental Stress Analysis, June 1981.
23. "Effect of Specimen Size and Geometry on Damping During a Run Arrest Event", with A. Shukla, 14th National Symposium on Fracture Mechanics, June 1981, UCLA.
24. "Data Collection in Tests Utilizing Explosive Loading", with D.C. Holloway and D.B. Barker, Measurements in Hostile Environments, Sept. 1981.
25. "The Variation of Non-Singular Terms in Fracture Test Specimens", with R. Chona and A. Shukla, Proceedings of the Society of Engineering Science, Sept. 1981.
26. "Energy Release Rates for Branched Crack System", with R. Chona and A. Shukla, Proceedings of the Society of Experimental Stress Analysis, May 1982.
27. "Presplitting and Stress Waves: A Dynamic Photoelastic Evaluation", with K.R.Y. Simha and D.C. Holloway, 23rd U.S. Symposium on Rock Mechanics, Aug. 1982.

28. "Dynamic Crack Growth in Polymers", with R. Chona and R.J. Sanford, Proceeding of Workshop on Dynamic Fracture, Pasadena, Calif., Feb. 1983.
29. "Fragmentation Studies in Jointed Brittle Materials", with D.C. Holloway, W.H. Wilson and D.B. Barker, Proceedings of SESA Meeting, Spring 1983, Cleveland, Ohio.
30. "Electromagnetic Velocity Gauge Measurement of Rock Mass Motion in Explosive Fragmentation Tests", with C. Young, B.C. Trent and N.C. Patti, 1st International Symposium on Rock Fragmentation by Blasting, Lulea, Sweden, Aug. 1983.
31. "Model Studies on Explosively Driven Cracks under Confining In-situ Stresses", with K.R.Y. Simha, D.B. Barker and A. Shukla, 1st International Symposium on Rock Fragmentation by Blasting, Lulea, Sweden, Aug. 1983.
32. "Dynamic Photoelastic Studies on Delayed Pre-split Blasting", with K.R.Y. Simha and D.C. Holloway, 1st International Symposium on Rock Fragmentation by Blasting, Lulea, Sweden, Aug. 1983.
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Typical Service Contributions: (2003-2004)

- Co Editor of International Journal of Fragmentation and Blasting
 - National Member - AIAA, AHS, ASTM, SEM ASEE, ASME, ISRM, and American Academy of Mechanics
 - President-Commission for Fragmentation by Blasting (ISRM)
 - Member of Technology Working Group
 - Member of Working Group on Modeling and Mechanisms
 - Member International Organizing Committee for 6th International Conference on Fragmentation by Blasting
 - Member Advisory Committee - Mechanical and Aerospace Engineering Department - West Virginia University
 - Member of Editorial Board of Rock Mechanics and Rock Engineering
 - Member of United States National Committee on Theoretical and Applied Mechanics
 - Reviewer for FRAGBLAST, NSF, ASTM, Experimental Mechanics, NSERC (National Sciences & Engineering Research Council – Canada)
- .Member Advisory Board for TAP Engineering Research Center
- Chair of Committee Composed of Chairs, Directors & Faculty to Plan New Engineering and Applied Science Building
 - Director of Facilities for College of Engineering
 - Member of Administrative Council - College of Engineering
 - Associate Dean for Faculty and Graduate Affairs
 - Chairman of Aerospace Engineering Department
 - Member Operations Committee for Campus
 - Member Facilities Advisory Committee for Campus
 - Member Teaching Facilities Committee for Campus
 - Director of College Machine Shop
 - Compliant Officer for College of Engineering
 - Chairman of College Committee for College of Engineering Recognition Award
 - Reviewer and Interviewer for Banneker Keys Scholarships
 - Faculty Advisor for Omicron Delta Kappa
 - Faculty Advisor for Tau Beta Pi
 - Chair of College Committee on Faculty Contracts
 - Member of College Park Campus Master Plan Committee
 - Member of Search Committee for V.P. for Administration for Campus