THE AERONAUTICAL JOURNAL

OF THE ROYAL AERONAUTICAL SOCIETY

Volume CIX

January-December 2005

Subject Index

ACOUSTICS

Acoustic validation of a new code using particle wake aerodynamics and geometrically-exact beam structural dynamics. F. Nitzsche and D.G. Opoku, pp 257-267.
Life before and after implementation of an acoustic noise reduction enclosure. B. Timmin, pp 65-74.
Prediction of acoustic resonance phenomena for cavities using detached eddy simulations. R.M. Ashworth, pp 631-638.

AERODYNAMICS

Technical Note: A theoretical description of viscous flow along a flat plate. R.C. Hastings, pp 585-589.
Effects of leading-edge bevel angle on the aerodynamic forces of a non-slender 50° delta wing. J.J. Wang and S.F. Lu, pp 403-407.
Kite performance testing by flying in a circle. J. Stevenson, K. Alexander and P. Lynn, pp 269-276.
Status and perspectives of laminar flow. G. Schrauf, pp 639-644.

AEROELASTICITY

Acoustic validation of a new code using particle wake aerodynamics and geometrically-exact beam structural dynamics. F. Nitzsche and D.G. Opoku, pp 257-267.
High-fidelity computational simulation of nonlinear fluid-structure interactions. R.E. Gordnier and M.R. Visbal, pp 301-312.
Low frequency behaviour of the subsonic doublet lattice method. L. van Zyl, pp 285-291.
Modelling and vibration of thin-walled rotating composite blades featuring extension-twist elastic coupling. S-Y. Oh, L. Librescu and O. Song, pp 233-246.
Polynomial series expansion for optimisation of wing plane structures in idealised critical flutter conditions. S. Tizzi, pp 23-33.

AEROSPACE ENGINEERING

Design and structural analysis of a thrust chamber for a spinning supersonic rocket – a case study. K.M. Rajan and K. Narasimhan, pp 187-192.
Jet thrust vectoring using a miniature fluidic oscillator. G. Raman, S. Packiarajan, G. Papadopoulos, C. Weissman and S. Raghu, pp 129-138.
Solar-powered space flight. M.H.D. Kemp, pp 619-670.

AIR TRAFFIC MANAGEMENT

Equipment failures in ATC: Finding an appropriate safety target. B. Subotic, W. Ochieng and A. Majumdar, pp 277-284.
Semi-optimal co-ordinated manoeuvres for aircraft conflict resolution. J. Parastari and M.B. Malaek, pp 313-323.
Studies of capacity estimation of the airport with two parallel runways. Y. Cao, Y. Chen and Y. Zhou, pp 395-401.

BOOK REVIEWS – BY AUTHOR

Ashby, M.F. and Jones, D.R.H. Engineering Materials 1: an Introduction to Properties, Applications and Design – Third edition, p 390.
Baker, A. *et al* (Ed) Composite Materials for Aircraft Structures – Second edition, p 417.
Barton, D.K. Radar System Analysis and Modeling, p 391.
Batra, R.C. Elements of Continuum Mechanics, p 391.
Cumpsty, N. Jet Propulsion: a simple guide to the aerodynamic and thermodynamic design and performance of jet engines – Second edition, p 358.
Curry, G.R. Radar System Performance Modeling – Second edition, p 391.
Driels, M.R. Weaponeering: Conventional Weapon System Effectiveness, p 200.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

Gutman, S. Applied Min-Max Approach to Missile Guidance and Control. Progress in Astronautics and Aeronautics series – Vol 209, p 418.
Hosford, W.F. Mechanical Behaviour of Materials, p 390.
Howe, D. Aircraft Loading and Structural Layout, p 200.
Jones, D.R.H. and Ashby, M.F. Engineering Materials 1: an Introduction to Properties, Applications and Design – Third edition, p 391.
Reddy, A.V. Investigation of Aeronautical and Engineering Component Failures, p 358.
Stengel, R.F. Flight Dynamics, p 417.
Taylor, J.R. Classical Mechanics, p 201.

BOOK REVIEWS – BY TITLE

Aircraft Loading and Structural Layout, D. Howe, p 200.
Applied Min-Max Approach to Missile Guidance and Control. Progress in Astronautics and Aeronautics series – Vol 209, S. Gutman, p 418.
Classical Mechanics, J.R. Taylor, p 201.
Composite Materials for Aircraft Structures – Second edition, A. Baker *et al* (Editor), p 417.
Elements of Continuum Mechanics, R.C. Batra, p 391.
Engineering Materials 1: an Introduction to Properties, Applications and Design – Third edition, M.F. Ashby and D.R.H. Jones, p 390.
Flight Dynamics, R.F. Stengel, p 417.
Investigation of Aeronautical and Engineering Component Failures, A.V. Reddy, p 358.
Jet Propulsion: a simple guide to the aerodynamic and thermodynamic design and performance of jet engines – Second edition, N. Cumpsty, p 358.
Mechanical Behaviour of Materials, W.F. Hosford, p 390.
Radar System Analysis and Modeling, D.K. Barton, p 391.
Radar System Performance Modeling – Second edition, G.R. Curry, p 391.
Weaponeering: Conventional Weapon System Effectiveness, M.R. Driels, p 200.

COMPOSITES

Design of composite helicopter rotor blades to meet given cross-sectional properties. S.L. Lemanski, P.M. Weaver, G.F.J. Hill, pp 471-475.
Modelling and vibration of thin-walled rotating composite blades featuring extension-twist elastic coupling. S-Y. Oh, L. Librescu and O. Song, pp 233-246.

COMPUTATIONAL FLUID DYNAMICS

Computational fluid dynamics study of unconventional air vehicle configurations. R. Ramamurti, W. Sandberg, P. Vaiana, J. Kellogg and D. Cylinder, pp 337-347.
Evaluation of CFD methods for transport aircraft high lift systems. R. Rudnik, P. Eliasson and J. Perraud, pp 53-64.
Numerical simulation of rim seal flows in axial turbines. J. Boudet, V.N.D. Autef, J.W. Chew, N.J. Hills and O. Gentilhomme, pp 373-383.
Progress toward CFD for full flight envelope. E.N. Tinoco, D.R. Bogue, T-J. Kao, N.J. Yu, P. Li and D.N. Ball, pp 451-460.

COMPUTATIONAL TECHNIQUES (GENERAL)

A numerical study on the mixing of air and hydrogen in a scramjet combustor. M. Ali and T. Fujiwara, pp 325-335.
Application of Java and VRML visualisation tools in store release wind-tunnel testing. D.M. Orchard, M. Ahmadi and F.C. Tang, pp 569-576.
High-fidelity computational simulation of nonlinear fluid-structure interactions. R.E. Gordnier and M.R. Visbal, pp 301-312.
Neuro-fuzzy approach for performance optimisation of variable nozzle turbofan engine. T.R. Nada and A.A. Hashem, pp 139-146.

DEFENCE

Flight control system damage simulation using freely flying models. S. Sadovnychiy, A. Ryzhenko and A. Betin, pp 45-50.

DESIGN

Bio-inspired design of flapping-wing micro air vehicles. K.D. Jones, C.J. Bradshaw, J. Papadopoulos and M.F. Platzer, pp 385-393.
Development of an airship for tropical rain forest canopy exploration. G.E. Dorrington, pp 361-372.

ENVIRONMENTAL ENGINEERING

Air Travel – Greener by Design Mitigating the environmental impact of aviation: Opportunities and priorities. J.E Green, pp 361-416.
Erratum: Greener by Design – The technology challenge. J.E. Green, pp 98-99.

FLIGHT CONTROL

Collision avoidance within flight dynamics constraints for UAV applications. R.W. Penney, pp 193-199.
Dynamic gain-scheduled control of the ICE 101-TV. T.S. Richardson, M.H. Lowenburg and C.D.C. Jones, pp 593-607.
Flight control system damage simulation using freely flying models. S. Sadovnychiy, A. Ryzhenko and A. Betin, pp 45-50.
Semi-optimal co-ordinated manoeuvres for aircraft conflict resolution. J. Parastari and M.B. Malaek, pp 313-323.
Simulation and flight test of a temperature sensing stabilisation system. P. Herrmann and C. Bil, pp 167-175.
The birth of the practical aeroplane: An appraisal of the Wright brothers' achievements. G.D. Padfield and B. Lawrence, pp 421-437.

FLIGHT SIMULATION

Integrated design of flight simulator motion cueing systems. R. Hosman, S. Advani and N. Haeck, p 1.

HISTORY

The birth of the practical aeroplane: An appraisal of the Wright brothers' achievements. G.D. Padfield and B. Lawrence, pp 421-437.

HUMAN FACTORS

A novel approach to encouraging proper fatigue management in British Army aviation training and operations. R.P. King, pp 293-298.

INDUSTRY

Trade disputes in the commercial aircraft industry: A background note. K. Hayward, pp 157-166.

JETS

2D numerical study of circular synthetic jets in quiescent flows. H. Tang and S. Zhong, pp 89-97.
Dye visualisation of inclined and skewed synthetic jets in a cross flow. S. Zhong, L. Garcillan and N.J Wood, pp 147-155.
Industry applications of advanced flow diagnostics experience in the BAE Systems ground effects rig. P. Curtis, pp 119-127.
Investigation into clustering of synthetic jet actuators. S.C. Liddle and N.J. Wood, pp 35-44.
PIV measurements in a twin-jet STOVL fountain flow. P.M. Cabrita, A.J. Saddington and K. Knowles, pp 439-449.
The behaviour of circular synthetic jets in a laminar boundary layer. S. Zhong, F. Millet, and N.J. Wood, pp 461-470.

LIGHTER THAN AIR

Development of an airship for tropical rain forest canopy exploration. G.E. Dorrington, pp 361-372.

PROPULSION

A numerical study on the mixing of air and hydrogen in a scramjet combustor. M. Ali and T. Fujiwara, pp 325-335.
Comprehensive validation of an intermittency transport model for

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

transitional low-pressure turbine flows. Y.B. Suzen and P.G. Huang, pp 101-118.
Design and structural analysis of a thrust chamber for a spinning supersonic rocket – a case study. K.M. Rajan and K. Narasimhan, pp 187-192.
Infra-red signature reduction study on a small-scale jet engine. J. Dix, A.J. Saddington, K. Knowles and M.A. Richardson, pp 83-88.
Jet thrust vectoring using a miniature fluidic oscillator. G. Raman, S. Packiarajan, G. Papadopoulos, C. Weissman and S. Raghu, pp 129-138.
Limited life engines for UAVs. I.K. Clark, pp 247-254.
Neuro-fuzzy approach for performance optimisation of variable nozzle turbofan engine. T.R. Nada and A.A. Hashem, pp 139-146.
Numerical simulation of rim seal flows in axial turbines. J. Boudet, V.N.D. Autef, J.W. Chew, N.J. Hills and O. Gentilhomme, pp 373-383.
Solar-powered space flight. M.H.D. Kemp, pp 619-670.

ROTORCRAFT
Acoustic validation of a new code using particle wake aerodynamics and geometrically-exact beam structural dynamics. F. Nitzsche and D.G. Opoku, pp 257-267.
Design of composite helicopter rotor blades to meet given cross-sectional properties. S.L. Lemanski, P.M. Weaver, G.F.J. Hill, pp 471-475.

SAFETY
A civil aviation safety assessment model using a Bayesian belief network (BBN). R. Greenberg, S.C. Cook and D. Harris, pp 557-568.
A novel approach to encouraging proper fatigue management in British Army aviation training and operations. R.P. King, pp 293-298.
Equipment failures in ATC: Finding an appropriate safety target. B. Subotic, W. Ochieng and A. Majumdar, pp 277-284.
Semi-optimal co-ordinated manoeuvres for aircraft conflict resolution. J. Parastari and M.B. Malaek, pp 313-323.

SHOCK WAVES
Experiments on the hypersonic turbulent shock-wave/boundary-layer interaction and the effects of surface roughness. S.A. Prince, M. Vannahme and J.L. Stollery, pp 177-185.
Normal shock wave/turbulent boundary-layer interaction control using ‘smart’ piezoelectric actuators. J.S. Couldrick, S.L. Gai, J.F. Milthorpe and K. Shankar, pp 577-583.
Shock-wave induced instability in internal explosion dynamics. A. Bagabir and D. Drikakis, pp 537-556.

STRUCTURES
Design and structural analysis of a thrust chamber for a spinning supersonic rocket – a case study. K.M. Rajan and K. Narasimhan, pp 187-192.
Optimum design for buckling of arbitrary shaped ribs under uncertain loads. A.C. Conrado, A.R. de Faria and S.F.M. de Almeida, pp 609-618.

TESTING FACILITIES AND TECHNIQUES
Application of Java and VRML visualisation tools in store release wind-tunnel testing. D.M. Orchard, M. Ahmadi and F.C. Tang, pp 569-576.
Experimental investigation of the effect of nozzle shape and test section perforation on the stationary and non-stationary characteristics. V.I. Biryukov, S.A. Glazkov, A.R. Gorbushin, A.I. Ivanov and A.V. Semenov, pp 75-82.
Industry applications of advanced flow diagnostics experience in the BAE Systems ground effects rig. P. Curtis, pp 119-127.
Kite performance testing by flying in a circle. J. Stevenson, K. Alexander and P. Lynn, pp 269-276.
Utilising flight test telemetry data to improve store trajectory simulations. A.T. Cenko, A.G. Piranian and S. Denihan, pp 349-357.

UNMANNED AIR VEHICLES
Bio-inspired design of flapping-wing micro air vehicles. K.D. Jones, C.J. Bradshaw, J. Papadopoulos and M.F. Platzer, pp 385-393.
Collision avoidance within flight dynamics constraints for UAV applications. R.W. Penney, pp 193-199.
Computational fluid dynamics study of unconventional air vehicle configurations. R. Ramamurti, W. Sandberg, P. Vaiana, J. Kellogg and D. Cylinder, pp 337-347.
Limited life engines for UAVs. I.K. Clark, pp 247-254.
Simulation and flight test of a temperature sensing stabilisation system. P. Herrmann and C. Bil, pp 167-175.

UNSTEADY AERODYNAMICS
A review of some recent developments in flow control. P.R. Ashill, J.L. Fulker and K.C. Hackett, pp 205-232.
Experiments on the hypersonic turbulent shock-wave/boundary-layer interaction and the effects of surface roughness. S.A. Prince, M. Vannahme and J.L. Stollery, pp 177-185.
Low frequency behaviour of the subsonic doublet lattice method. L. van Zyl, pp 285-291.
Normal shock wave/turbulent boundary-layer interaction control using ‘smart’ piezoelectric actuators. J.S. Couldrick, S.L. Gai, J.F. Milthorpe and K. Shankar, pp 577-583.
PIV measurements in a twin-jet STOVL fountain flow. P.M. Cabrita, A.J. Saddington and K. Knowles, pp 439-449.
Progress toward CFD for full flight envelope. E.N. Tinoco, D.R. Bogue, T-J. Kao, N.J. Yu, P. Li and D.N. Ball, pp 451-460.

VIBRATION
Acoustic validation of a new code using particle wake aerodynamics and geometrically-exact beam structural dynamics. F. Nitzsche and D.G. Opoku, pp 257-267.
Modelling and vibration of thin-walled rotating composite blades featuring extension-twist elastic coupling. S-Y. Oh, L. Librescu and O. Song, pp 233-246.

WAKES
Comprehensive validation of an intermittency transport model for transitional low-pressure turbine flows. Y.B. Suzen and P.G. Huang, pp 101-118.
The vortex merger factor in aircraft wake turbulence. M. Mokry, pp 13-22.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

Author Index

ADVANI, S., HAECK, N. and HOSMAN, R.
Integrated design of flight simulator motion cueing systems, p 1.

AHMADI, M., TANG, F.C. and ORCHARD, D.M.
Application of Java and VRML visualisation tools in store release wind-tunnel testing, pp 569-576.

ALEXANDER, K., LYNN, P. and STEVENSON, J.
Kite performance testing by flying in a circle, pp 269-276.

ALI, M. and FUJIWARA, T.
A numerical study on the mixing of air and hydrogen in a scramjet combustor, pp 325-335.

DE ALMEIDA, S.F.M., CONRADO, A.C. and DE FARIA, A.R.
Optimum design for buckling of arbitrary shaped ribs under uncertain loads, pp 609-618.

ASHILL, P.R., FULKER, J.L. and HACKETT, K.C.
A review of some recent developments in flow control, pp 205-232.

ASHWORTH, R.M.
Prediction of acoustic resonance phenomena for cavities using detached eddy simulations, pp 631-638.

AUTEF, V.N.D., CHEW, J.W., HILLS, N.J., GENTILHOMME, O. and BOUDET, J.
Numerical simulation of rim seal flows in axial turbines, pp 373-383.

BAGABIR, A. and DRIKAKIS, D.
Shock-wave induced instability in internal explosion dynamics, pp 537-556.

BALL, D.N., TINOCO, E.N., BOGUE, D.R., KAO, T-J., YU, N.J. and LI, P.
Progress toward CFD for full flight envelope, pp 451-460.

BETIN, A, SADOVNYCHIY, S. and RYZHENKO, A.
Flight control system damage simulation using freely flying models, pp 45-50.

BETIN, A., SADOVNYCHIY, S. and RYZHENKO, A.
Flight control system damage simulation using freely flying models, pp 45-50.

BIL, C. and HERRMANN, P.
Simulation and flight test of a temperature sensing stabilisation system, pp 167-175.

BIRYUKOV, V.I., GLAZKOV, S.A., GORBUSHIN, A.R., IVANOV, A.I. and SEMENOV, A.V.
Experimental investigation of the effect of nozzle shape and test section perforation on the stationary and non-stationary characteristics, pp 75-82.

BOGUE, D.R., KAO, T-J., YU, N.J., LI, P., BALL, D.N. and TINOCO, E.N.
Progress toward CFD for full flight envelope, pp 451-460.

BOUDET, J., AUTEF, V.N.D., CHEW, J.W., HILLS, N.J. and GENTILHOMME, O.
Numerical simulation of rim seal flows in axial turbines, pp 373-383.

BRADSHAW, C.J., PAPADOPOULOS, J., PLATZER, M.F. and JONES, K.D.
Bio-inspired design of flapping-wing micro air vehicles, pp 385-393.

CABRITA, P.M., SADDINGTON, A.J. and KNOWLES, K.
PIV measurements in a twin-jet STOVL fountain flow, pp 439-449.

CAO, Y., CHEN, Y. and ZHOU, Y.
Studies of capacity estimation of the airport with two parallel runways, pp 395-401.

CENKO, A.T., PIRANIAN, A.G. and DENIHAN, S.
Utilising flight test telemetry data to improve store trajectory simulations, pp 349-357.

CHEN, Y., ZHOU, Y. and CAO, Y.
Studies of capacity estimation of the airport with two parallel runways, pp 395-401.

CHEW, J.W., HILLS, N.J., GENTILHOMME, O., BOUDET, J. and AUTEF, V.N.D.
Numerical simulation of rim seal flows in axial turbines, pp 373-383.

CLARK, I.K.
Limited life engines for UAVs, pp 247-254.

CONRADO, A.C., DE FARIA, A.R. and DE ALMEIDA, S.F.M.
Optimum design for buckling of arbitrary shaped ribs under uncertain loads, pp 609-618.

COOK, S.C., HARRIS, D. and GREENBERG, R.
A civil aviation safety assessment model using a Bayesian belief network (BBN), pp 557-568.

COULDRICK, J.S., GAI, S.L., MILTHORPE, J.F. and SHANKAR, K.
Normal shock wave/turbulent boundary-layer interaction control using 'smart' piezoelectric actuators, pp 577-583.

CURTIS, P.
Industry applications of advanced flow diagnostics experience in the BAE Systems ground effects rig, pp 119-127.

CYLINDER, D., RAMAMURTI, R., SANDBERG, W., VAIANA, P. and KELLOGG, J.
Computational fluid dynamics study of unconventional air vehicle configurations, pp 337-347.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

DENIHAN, S., CENKO, A.T. and PIRANIAN, A.G.
Infra-red signature reduction study on a small-scale jet engine, pp 83-88.

DIX, J., SADDINGTON, A.J., KNOWLES, K. and RICHARDSON, M.A.
Development of an airship for tropical rain forest canopy exploration, pp 361-372.

DORRINGTON, G.E.
Shock-wave induced instability in internal explosion dynamics, pp 537-556.

DRIKAKIS, D. and BAGABIR, A.
Evaluation of CFD methods for transport aircraft high lift systems, pp 53-64.

ELIASSON, P, PERRAUD, J. and RUDNIK, R.
Optimum design for buckling of arbitrary shaped ribs under uncertain loads, pp 609-618.

DE FARIA, A.R., DE ALMEIDA, S.F.M. and CONRADO, A.C.
Utilising flight test telemetry data to improve store trajectory simulations, pp 349-357.

FUJIWARA, T. and ALI, M.
A numerical study on the mixing of air and hydrogen in a scramjet combustor, pp 325-335.

FULKER, J.L., HACKETT, K.C. and ASHILL, P.R.
A review of some recent developments in flow control, pp 205-232.

GAI, S.L., MILTHORPE, J.F., SHANKAR, K. and COULDRICK, J.S.
Normal shock wave/turbulent boundary-layer interaction control using 'smart' piezoelectric actuators, pp 577-583.

GARCILLAN, L., WOOD, N.J and ZHONG, S.
Dye visualisation of inclined and skewed synthetic jets in a cross flow, pp 147-155.

GENTILHOMME, O., BOUDET, J., AUTEF, V.N.D., CHEW, J.W. and HILLS, N.J.
Numerical simulation of rim seal flows in axial turbines, pp 373-383.

GLAZKOV, S.A., GORBUSHIN, A.R., IVANOV, A.I., SEMENOV, A.V. and BIRYUKOV, V.I.
Experimental investigation of the effect of nozzle shape and test section perforation on the stationary and non-stationary characteristics, pp 75-82.

GORBUSHIN, A.R., IVANOV, A.I., SEMENOV, A.V., BIRYUKOV, V.I. and GLAZKOV, S.A.
Experimental investigation of the effect of nozzle shape and test section perforation on the stationary and non-stationary characteristics, pp 75-82.

GORDNIER, R.E. and VISBAL, M.R.
High-fidelity computational simulation of nonlinear fluid-structure interactions, pp 301-312.

GREEN, J.E.
Air Travel – Greener by Design Mitigating the environmental impact of aviation: Opportunities and priorities, pp 361-416.
Erratum: Greener by Design – The technology challenge, pp 98-99.

GREENBERG, R., COOK, S.C. and HARRIS, D.
A civil aviation safety assessment model using a Bayesian belief network (BBN), pp 557-568.

HACKETT, K.C., ASHILL, P.R. and FULKER, J.L.
A review of some recent developments in flow control, pp 205-232.

HAECK, N., HOSMAN, R. and ADVANI, S.
Integrated design of flight simulator motion cueing systems, p 1.

HARRIS, D., GREENBERG, R. and COOK, S.C.
A civil aviation safety assessment model using a Bayesian belief network (BBN), pp 557-568.

HASHEM, A.A. and NADA, T.R.
Neuro-fuzzy approach for performance optimisation of variable nozzle turbofan engine, pp 139-146.

HASTINGS, R.C.
Technical Note: A theoretical description of viscous flow along a flat plate, pp 585-589.

HAYWARD, K.
Trade disputes in the commercial aircraft industry: A background note, pp 157-166.

HERRMANN, P. and BIL, C.
Simulation and flight test of a temperature sensing stabilisation system, pp 167-175.

HILL, G.F.J., LEMANSKI, S.L. and WEAVER, P.M.
Design of composite helicopter rotor blades to meet given cross-sectional properties, pp 471-475.

HILLS, N.J., GENTILHOMME, O., BOUDET, J., AUTEF, V.N.D. and CHEW, J.W.
Numerical simulation of rim seal flows in axial turbines, pp 373-383.

HOSMAN, R., ADVANI, S. and HAECK, N.
Integrated design of flight simulator motion cueing systems, p 1.

HUANG, P.G. and SUZEN, Y.B.
Comprehensive validation of an intermittency transport model for transitional low-pressure turbine flows, pp 101-118.

IVANOV, A.I., SEMENOV, A.V., BIRYUKOV, V.I., GLAZKOV, S.A. and GORBUSHIN, A.R.
Experimental investigation of the effect of nozzle shape and test section perforation on the stationary and non-stationary characteristics, pp 75-82.

JONES, C.D.C., RICHARDSON, T.S. and LOWENBURG, M.H.
Dynamic gain-scheduled control of the ICE 101-TV, pp 593-607.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

JONES, K.D., BRADSHAW, C.J., PAPADOPOULOS, J. and PLATZER, M.F.
Bio-inspired design of flapping-wing micro air vehicles, pp 385-393.

KAO, T-J., YU, N.J., LI, P., BALL, D.N.TINOCO, E.N. and BOGUE, D.R.
Progress toward CFD for full flight envelope, pp 451-460.

KELLOGG, J., CYLINDER, D.RAMAMURTI, R., SANDBERG, W. and VAIANA, P.
Computational fluid dynamics study of unconventional air vehicle configurations, pp 337-347.

KEMP, M.H.D.
Solar-powered space flight, pp 619-670.

KING, R.P.
A novel approach to encouraging proper fatigue management in British Army aviation training and operations, pp 293-298.

KNOWLES, K., CABRITA, P.M. and SADDINGTON, A.J.
Infra-red signature reduction study on a small-scale jet engine, pp 83-88.

KNOWLES, K., RICHARDSON, M.A., DIX, J. and SADDINGTON, A.J.
PIV measurements in a twin-jet STOVL fountain flow, pp 439-449.

LAWRENCE, B. and PADFIELD, G.D.
The birth of the practical aeroplane: An appraisal of the Wright brothers' achievements, pp 421-437.

LEMANSKI, S.L., WEAVER, P.M. and HILL, G.F.J.
Design of composite helicopter rotor blades to meet given cross-sectional properties, pp 471-475.

LI, P., BALL, D.N., TINOCO, E.N., BOGUE, D.R., KAO, T-J. AND YU, N.J.
Progress toward CFD for full flight envelope, pp 451-460.

LIBRESCU, L., SONG, O. and OH, S-Y.
Modelling and vibration of thin-walled rotating composite blades featuring extension-twist elastic coupling, pp 233-246.

LIDDLE, S.C. and WOOD, N.J.
Investigation into clustering of synthetic jet actuators, pp 35-44.

LOWENBURG, M.H., JONES, C.D.C. and RICHARDSON, T.S.
Dynamic gain-scheduled control of the ICE 101-TV, pp 593-607.

LU, S.F. and WANG, J.J.
Effects of leading-edge bevel angle on the aerodynamic forces of a non-slender 50° delta wing, pp 403-407.

LYNN, P., STEVENSON, J. and ALEXANDER, K.
Kite performance testing by flying in a circle, pp 269-276.

MAJUMDAR, A., SUBOTIC, B. and OCHIENG, W.
Equipment failures in ATC: Finding an appropriate safety target, pp 277-284.

MALAEK, M.B. and PARASTARI, J.
Semi-optimal co-ordinated manoeuvres for aircraft conflict resolution, pp 313-323.

MILLET, F., WOOD, N.J. and ZHONG, S.
The behaviour of circular synthetic jets in a laminar boundary layer, pp 461-470.

MILTHORPE, J.F., SHANKAR, K., COULDRICK, J.S. and GAI, S.L.
Normal shock wave/turbulent boundary-layer interaction control using 'smart' piezoelectric actuators, pp 577-583.

MOKRY, M.
The vortex merger factor in aircraft wake turbulence, pp 13-22.

NADA, T.R. and HASHEM, A.A.
Neuro-fuzzy approach for performance optimisation of variable nozzle turbofan engine, pp 139-146.

NARASIMHAN, K. and RAJAN, K.M.
Design and structural analysis of a thrust chamber for a spinning supersonic rocket – a case study, pp 187-192.

NITZSCHE, F. and OPOKU, D.G.
Acoustic validation of a new code using particle wake aerodynamics and geometrically-exact beam structural dynamics, pp 257-267.

OCHIENG, W., MAJUMDAR, A. and SUBOTIC, B.
Equipment failures in ATC: Finding an appropriate safety target, pp 277-284.

OH, S-Y., LIBRESCU, L. and SONG, O.
Modelling and vibration of thin-walled rotating composite blades featuring extension-twist elastic coupling, pp 233-246.

OPOKU, D.G. and NITZSCHE, F.
Acoustic validation of a new code using particle wake aerodynamics and geometrically-exact beam structural dynamics, pp 257-267.

ORCHARD, D.M., AHMADI, M. and TANG, F.C.
Application of Java and VRML visualisation tools in store release wind-tunnel testing, pp 569-576.

PACKIARAJAN, S., PAPADOPOULOS, G., WEISSMAN, C., RAGHU, S. and RAMAN, G.
Jet thrust vectoring using a miniature fluidic oscillator, pp 129-138.

PADFIELD, G.D. and LAWRENCE, B.
The birth of the practical aeroplane: An appraisal of the Wright brothers' achievements, pp 421-437.

PAPADOPOULOS, G., WEISSMAN, C, RAGHU, S,.RAMAN, G. and PACKIARAJAN, S.
Jet thrust vectoring using a miniature fluidic oscillator, pp 129-138.

PAPADOPOULOS, J., PLATZER, M.F., JONES, K.D. and BRADSHAW, C.J.
Bio-inspired design of flapping-wing micro air vehicles, pp 385-393.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

PARASTARI, J. and MALAEK, M.B.
Semi-optimal co-ordinated manoeuvres for aircraft conflict resolution, pp 313-323.

PENNEY, R.W.
Collision avoidance within flight dynamics constraints for UAV applications, pp 193-199.

PERRAUD, J., RUDNIK, R. and ELIASSON, P.
Evaluation of CFD methods for transport aircraft high lift systems, pp 53-64.

PIRANIAN, A.G., DENIHAN, S. and CENKO, A.T.
Utilising flight test telemetry data to improve store trajectory simulations, pp 349-357.

PLATZER, M.F., JONES, K.D., BRADSHAW, C.J. and PAPADOPOULOS, J.
Bio-inspired design of flapping-wing micro air vehicles, pp 385-393.

PRINCE, S.A., VANNAHME, M. and STOLLERY, J.L.
Experiments on the hypersonic turbulent shock-wave/boundary-layer interaction and the effects of surface roughness, pp 177-185.

RAGHU, S., RAMAN, G., PACKIARAJAN, S., PAPADOPOULOS, G. and WEISSMAN, C.
Jet thrust vectoring using a miniature fluidic oscillator, pp 129-138.

RAJAN, K.M. and NARASIMHAN, K.
Design and structural analysis of a thrust chamber for a spinning supersonic rocket – a case study, pp 187-192.

RAMAMURTI, R., SANDBERG, W., VAIANA, P., KELLOGG, J. and CYLINDER, D.
Computational fluid dynamics study of unconventional air vehicle configurations, pp 337-347.

RAMAN, G., PACKIARAJAN, S., PAPADOPOULOS, G., WEISSMAN, C. and RAGHU, S.
Jet thrust vectoring using a miniature fluidic oscillator, pp 129-138.

RICHARDSON, M.A., DIX, J., SADDINGTON, A.J. and KNOWLES, K.
Infra-red signature reduction study on a small-scale jet engine, pp 83-88.

RICHARDSON, T.S., LOWENBURG, M.H. and JONES, C.D.C.
Dynamic gain-scheduled control of the ICE 101-TV, pp 593-607.

RUDNIK, R., ELIASSON, P. and PERRAUD, J.
Evaluation of CFD methods for transport aircraft high lift systems, pp 53-64.

SADDINGTON, A.J., KNOWLES, K. and CABRITA, P.M.
PIV measurements in a twin-jet STOVL fountain flow, pp 439-449.

SADDINGTON, A.J., KNOWLES, K. and RICHARDSON, M.A. and DIX, J.
Infra-red signature reduction study on a small-scale jet engine, pp 83-88.

SADOVNYCHIY, S., RYZHENKO, A. and BETIN, A.
Flight control system damage simulation using freely flying models, pp 45-50.

SANDBERG, W., VAIANA, P., KELLOGG, J., CYLINDER, D. and RAMAMURTI, R.
Computational fluid dynamics study of unconventional air vehicle configurations, pp 337-347.

SCHRAUF, G.
Status and perspectives of laminar flow, pp 639-644.

SEMENOV, A.V., BIRYUKOV, V.I., GLAZKOV, S.A., GORBUSHIN, A.R. and IVANOV, A.I.
Experimental investigation of the effect of nozzle shape and test section perforation on the stationary and non-stationary characteristics, pp 75-82.

SHANKAR, K., COULDRICK, J.S., GAI, S.L. and MILTHORPE, J.F.
Normal shock wave/turbulent boundary-layer interaction control using 'smart' piezoelectric actuators, pp 577-583.

SONG, O., OH, S-Y. and LIBRESCU, L.
Modelling and vibration of thin-walled rotating composite blades featuring extension-twist elastic coupling, pp 233-246.

STEVENSON, J., ALEXANDER, K. and LYNN, P.
Kite performance testing by flying in a circle, pp 269-276.

STOLLERY, J.L., PRINCE, S.A. and VANNAHME, M.
Experiments on the hypersonic turbulent shock-wave/boundary-layer interaction and the effects of surface roughness, pp 177-185.

SUBOTIC, B., OCHIENG, W. and MAJUMDAR, A.
Equipment failures in ATC: Finding an appropriate safety target, pp 277-284.

SUZEN, Y.B. and HUANG, P.G.
Comprehensive validation of an intermittency transport model for transitional low-pressure turbine flows, pp 101-118.

TANG, F.C., ORCHARD, D.M. and AHMADI, M.
Application of Java and VRML visualisation tools in store release wind-tunnel testing, pp 569-576.

TANG, H. and ZHONG, S.
2D numerical study of circular synthetic jets in quiescent flows, pp 89-97.

TIMMIN, B.
Life before and after implementation of an acoustic noise reduction enclosure, pp 65-74.

TINOCO, E.N., BOGUE, D.R., KAO, T-J., YU, N.J., LI, P. and BALL, D.N.
Progress toward CFD for full flight envelope, pp 451-460.

TIZZI, S.
Polynomial series expansion for optimisation of wing plane structures in idealised critical flutter conditions, pp 23-33.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

VAIANA, P., KELLOGG, J., CYLINDER, D., RAMAMURTI, R. and SANDBERG, W.
Computational fluid dynamics study of unconventional air vehicle configurations, pp 337-347.

VAN ZYL, L.
Experiments on the hypersonic turbulent shock-wave/boundary-layer interaction and the effects of surface roughness, pp 177-185.

VANNAHME, M., STOLLERY, J.L. and PRINCE, S.A.
High-fidelity computational simulation of nonlinear fluid-structure interactions, pp 301-312.

VISBAL, M.R. and GORDNIER, R.E.
Effects of leading-edge bevel angle on the aerodynamic forces of a non-slender 50° delta wing, pp 403-407.

WANG, J.J. and LU, S.F.
Design of composite helicopter rotor blades to meet given cross-sectional properties, pp 471-475.

WEAVER, P.M., HILL, G.F.J. and LEMANSKI, S.L.
Jet thrust vectoring using a miniature fluidic oscillator, pp 129-138.

WEISSMAN, C., RAGHU, S. RAMAN, G., PACKIARAJAN, S., and PAPADOPOULOS, G.
Dye visualisation of inclined and skewed synthetic jets in a cross flow, pp 147-155.

WOOD, N.J, ZHONG, S. and GARCILLAN, L.
Investigation into clustering of synthetic jet actuators, pp 35-44.

WOOD, N.J. and LIDDLE, S.C.
The behaviour of circular synthetic jets in a laminar boundary layer, pp 461-470.

WOOD, N.J., ZHONG, S. and MILLET, F.
Progress toward CFD for full flight envelope, pp 451-460.

YU, N.J., LI, P., BALL, D.N., TINOCO, E.N., BOGUE, D.R. and KAO, T-J.
2D numerical study of circular synthetic jets in quiescent flows, pp 89-97.

ZHONG, S. and TANG, H.
Dye visualisation of inclined and skewed synthetic jets in a cross flow, pp 147-155.

ZHONG, S., GARCILLAN, L. and WOOD, N.J.
The behaviour of circular synthetic jets in a laminar boundary layer, pp 461-470.

ZHONG, S., MILLET, F. and WOOD, N.J.
Studies of capacity estimation of the airport with two parallel runways, pp 395-401.

ZHOU, Y., CAO, Y. and CHEN, Y.
Low frequency behaviour of the subsonic doublet lattice method, pp 285-291.

Volume CIX

Number 1091	January	pp 1-51
Number 1092	February	pp 53-99
Number 1093	March	pp 101-156
Number 1094	April	pp 157-203
Number 1095	May	pp 205-255
Number 1096	June	pp 257-298
Number 1097	July	pp 301-359
Number 1098	August	pp 361-419
Number 1099	September	pp 361-419
Number 1100	October	pp 421-475
Number 1101	November	pp 537-591
Number 1102	December	pp 593-656

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press

Referees: January – December 2005

The editorial staff would like to thank all the referees who provided valuable comments throughout 2005. Those who assisted on papers which reached a conclusion in 2005 are listed below:

R.W. Ainsworth
C.B. Allen
J.E. Allen
D.J. Allerton
K.J. Badcock
G. Barakos
E. Bloem
D. Bray
M.G. Braithwaite
R. Butler
R.E. Caves
M. Chapple
G. Coleman
N. Collings
M.V. Cook
J.E. Cooper
J. Couldrick
P. Curtis
J. Delery
S.M. Doherty
G.T.S. Done
J.A. Edwards
P. Emmerson
B.J.G. Essun
D.G. Fearn
C.R. Forsey
G. Foster
C. Fielding
B. Finlay
K.P. Garry
K.E. Geisinger
C. Goodchild
W. Haase
K.C. Hackett
C. Hatch
P. Havelock
P.J. Hogg
R. Howard
R. Hughes
G.R. Inger
M. Imregun
T.V. Jones
P.T.W. Juggins
J. Keirl
M.G. Kellett
D.L. Kunz
D. Lambie
J.S. Lingard
K. MacKenzie
C.P. Massey
J.J. McGuirk
D. McLean
K. Morgan
J.F. Morrison
K. Nippress
W.Y. Ochieng
M.L.G. Oldfield
R.A. Onions
J.M. Owen
P. Pilidis
M. Prandini
M.S. Pressnell
N. Qin
B.E. Richards
A.C. Roberts
A. Rosen
P.C. Ruffles
D. Sawyers
R. Singh
G.T. Shanks
A. Stapleton
P. Stow
J.E. Strutt
D. Sweeting
J. Swithenbank
R. Voss
D. Walker
W.R. Walker
N.P. Weatherill
J.R. Whurr
B.R. Williams
N. Wood
D.A. Wright
J.R. Wright
C.B. Young

The editorial staff also thank the Associate Editors for their guidence throughout 2005.

https://doi.org/10.1017/S0001924000086553 Published online by Cambridge University Press