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ABSTRACT

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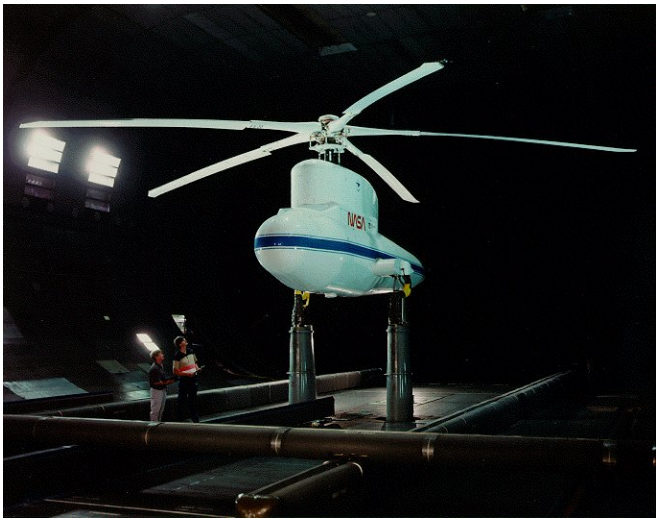


Figure 1. Sikorsky bearingless rotor mounted in the NASA Ames 40- by 80-Foot Wind Tunnel.

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Table 1. AgustaWestland AW609 Aircraft Characteristics.

Characteristic	English	Metric
Engines	2 x P&WC[a] PT6C-67A turboshaft	
Passengers	6 to 9 pax + 1–2 crew	
Engine Power	2 x 1,940 shp	2 x 1,450 kW
Wingspan	33.8 ft	10.3 m
Length	46 ft	14.0 m
Height	15 ft	4.5 m
Proprotor Diameter	26 ft	7.9 m
Max Useful Load	5,500 lb	2,500 kg
Max Gross Weight	16,000 lb	6,974 kg
Range	750 nm	1,389 km
Service ceiling	25,000 ft	11,364 m
Vmax (at cruise)	275 kt	509 km/h

[a]P&WC: Pratt & Whitney Canada

CONCLUSIONS

The most important results of the paper should be summarized as a concise list of numbered items. Conclusions should be supported by development in the main text and no new material should be introduced in this section. If the paper did not result in specific conclusions, then the section may be entitled Concluding Remarks or Concluding Recommendations, with brief summary comments as appropriate.

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ACKNOWLEDGMENTS

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2. Leishman, J. G., *Principles of Helicopter Aerodynamics*, Cambridge University Press, New York, NY, 2000, Chapter 10.

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3. Friedmann, P. P., and Hodges, D. H., "Rotary-Wing Aeroelasticity with Application to VTOL Vehicles," *Flight-Vehicle Materials, Structures, and Dynamics*, edited by A. K. Noor and S. L. Venneri, Vol. 5, Part II, Chap. 6, American Society of Mechanical Engineers, New York, NY, 1993, pp. 299–391.

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For Journal of the American Helicopter Society Volume 1 to Volume 53 (2008):

5. Chopra, I., "Dynamic Stability of a Bearingless Circulation Control Rotor Blade in Hover," *Journal of the American Helicopter Society*, Vol. 30, (4), 1985, pp. 40–47. DOI: 10:4050/JAHS.30.40.

For Journal of the American Helicopter Society Volume 54 (2009) to Current:

6. Yeo, H., Potsdam, M., and Ormiston, R. A., "Rotor Aeroelastic Stability Analysis Using Coupled Computational Fluid Dynamics/Computational Structural Dynamics," *Journal of the American Helicopter Society*, Vol. 56, (4), October 2011, pp. 1884–2013. DOI: 10.4050/JAHS.56.042003.

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