# WINGS

SUMMER 2023
VOLUME 75 NO.4



## WELL-CONNECTED
AUSTRALIA'S MILITARY AEROSPACE INDUSTRY

## OUT OF THIS WORLD
INVENTING THE SPACE SHUTTLE

# A FORCE MULTIPLIER
AIR-TO-AIR REFUELLING

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AIR FORCE ASSOCIATION MAGAZINE
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# MANAGING EDITOR'S MESSAGE

**I AM LEAVING** the managing editor role with mixed emotions as I feel the modernised version of *Wings* is my baby and I believe it has matured successfully over the past four years. The new-look magazine was inspired by RAAFA Publications Managing Director, AVM (retd) Neil Smith and I have been blessed with a very competent production team and an enthusiastic group of copywriters. I can't thank them enough for making me look good. In particular, I would like to thank Sandy McPhie for her editorial experience and guidance, and her tolerance; and Katie Monin for her artistic skill and initiative. John Kindler and Bob Treloar have been stalwarts; Bob's book reviews and last flight contributions add a human touch to the magazine. Peter Ring for his insightful observations of the human condition in relation to management and leadership. I must also acknowledge Michael Nelmes for his knowledge, research tenacity and authorship. Unfortunately, Michael is also leaving the magazine as his responsibilities as curator of the Narromine Aviation Museum has crowded out his spare time. Michael Musumeci has accepted the historian role and Rob Amos will assume the managing editor role. I appreciate their commitment and wish them well as the magazine continues to gain traction. Thank you all for the experience.

*Ron Haack*, **Wings** *managing editor*

## EDITORIAL DEADLINES

*Wings* welcomes submissions and letters to the editor. Please send submissions to: **managing.editor@wingsmagazine.org**, including your name and details. Submissions maybe edited for length and clarity. We cannot guarantee all material will be published.

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| Autumn 2024 (March) | 20 January |
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AIR FORCE ASSOCIATION




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Our Summer 23 cover story traces the 100 year evolution of air-to-air refuelling culminating with the very successful RAAF KC-30 MRTT, now being adopted around he world. We continue to expose a number of home-grown innovations and we present a robust analysis of the defence industry implications emerging from the Defence Strategic Review.

We follow the Spring feature on lifting bodies with a synopsis of the space shuttle development and it's employment. And we have added a new segment dealing with civil Aviation to our regular features.

In this edition, the RAAF proudly declares adoption of drone racing as a fun activity to encourage aviators of all ranks to engage with and exploit remote, autonomous resources using technologies of the future. And there is a great story about young students from around the world participating in the Global

Space Challenge, an annual opportunity to learn and take part in a virtual space experiment.