

Hybrid drone conversion plan for the retired MiG-21 Bison

Balancing expendable strike capability and reusable test platforms



MiG-21 converted into unmanned combat aerial vehicles, without cockpit (graphic by the author)

The Indian Air Force (IAF) is in the final stages of retiring the MiG-21 bison fleet which is inspired by the need to modernise the force structure. While the traditional approach to the aircraft retirement includes either scraping or museum protection, this article explores a practical alternative: converting a portion of these platforms into unmanned combat aerial vehicles (UCAVs) under a hybrid operational model. The proposed plan allocates approximately 70% of the retired airframes for expendable kamikaze strike missions and 30% for reusable test and evaluation platforms. This approach aims to maximise cost-effectiveness, enhance indigenous drone warfare capabilities, and provide a transitional bridge between manned fighter operations and next generation unmanned systems.

With the retirement of the MiG-21 Bison, the Indian Air Force will inevitably face a thinning of its combat fleet, a void that cannot be overlooked in an era of rapidly

shifting threats. Nevertheless, through the strategy mentioned in this analysis, zero needs to be weakness. By breathing new life in these respected machines, we can turn loss into strength, ensuring that IAF not only tolerates the challenges of modern war, but also rises to meet them with flexibility.

In this vision, the MiG-21 does not fade quietly into history—it evolves into a shield and a spear, carrying the Air Force into the unforgiving realities of twenty first century conflict with dignity, relevance and force.

Introduction

MiG-21 has been the backbone of IAF's fighter inventory for more than five decades, with the advanced bison version expanding its operational relevance in the 21st century. However, despite its service records, the design boundaries of the aircraft – especially in terms of