# Article information:

Fifty years of hypersonics: where we've been, where we're going - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0376042103000794>

# Article summary:

1. Hypersonic flight has been achieved through intensive research and development over six decades, but the hypersonic environment remains harsh and non-forgiving.

2. To continue making advances in hypersonic flight, sustained and visionary efforts are essential to generate required knowledge and technology.

3. There are three vital mission goals that require vehicles capable of hypersonic speeds: delivering decisive blows at the outset of hostilities, delivering cost-effective weapons to defeat time-critical targets, and maintaining flexible access to space.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article "Fifty years of hypersonics: where we've been, where we're going" provides a comprehensive overview of the advances made in hypersonic flight over the past 50 years and discusses potential future developments. The article is well-researched and provides valuable insights into the challenges faced by designers and engineers working in this field.

One potential bias in the article is its focus on military applications of hypersonic flight. While it acknowledges that access to space is important for non-military purposes as well, such as commercial interests, it primarily discusses the military's need for hypersonic capabilities. This bias may be due to the fact that much of the research and development in this field has been driven by military applications.

The article also presents some unsupported claims, such as stating that "access-to-space remains an expensive and relatively inflexible activity" without providing evidence to support this claim. Additionally, while the article acknowledges that there have been unknown unknowns that have caused problems during early flights of new systems, it does not explore potential counterarguments or alternative perspectives on how these issues could be addressed.

Overall, however, the article provides a thorough analysis of the advances made in hypersonic flight over the past 50 years and highlights potential areas for future research and development. It is a valuable resource for anyone interested in this field.

# Topics for further research:

* Commercial applications of hypersonic flight
* Environmental impact of hypersonic flight
* Ethical considerations of hypersonic weapons
* International regulations on hypersonic flight
* Alternative approaches to hypersonic propulsion
* Economic feasibility of hypersonic flight technology

# Report location:

<https://www.fullpicture.app/item/6d414b1176a3aa775b4ce9aa18466958>