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VOL. 3, NO. 4, WINTER 2008 (OCTOBER-DECEMBER)

Editor's Note vii

### 1. THE ROCKY ROAD TO FULL JOINTNESS

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Few militaries have as much experience in joint operations and "jointness" as the US military, making it the template for adoption by other militaries. It is this jointness that **Benjamin S. Lambeth** of RAND Corporation critically examines in this paper to discover that the US military still has a long way to go down the jointness road in spite of sincere efforts by all four components to achieve it within the organisational structures designed for operations across the globe.

# 2. INDIAN AIR FORCE:

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#### **BUILDING INDIGENOUS RESEARCH CAPABILITY**

Self-reliance has been a key foundation of Indian defence policy for six decades. But the capacity for design and development, so critical to self-reliance has received less attention during the past four decades even when compared to the previous four. Air Marshal **T.M. Asthana** (Retd) has made a strong case for the real stakeholder in aerospace power – the Indian Air Force – to take a greater and active role in this process in order to strengthen national defence and its industry.

#### 3. WHY AND HOW OF AIR DOMINANCE

It is clear that the military world has come round a full conceptual circle: from command of the air, to air superiority, to favourable air situation (which threatened to become increasingly local!), back to "air dominance" now. Air Marshal A.V. Vaidya (Retd) leads up to the rationale for air dominance since technology now promises to expand this from air-to-air to air-to-surface dominance.

#### 4. PAKISTAN'S NAVY: NEW CAPABILITIES, NEW ROLES?

In keeping with the traditional belief of being a "silent Service," the Pakistan Navy has been quietly building up its power projection during the past two decades in order to dominate the Arabian Sea. Ms. Shalini Chawla details the steps being taken for this qualitative and quantitative build-up of the navy, especially its maritime aerial strike capabilities. She concludes that the build-up of such capabilities with modern technology systems would expand its sea denial zone.

## WEAPONISATION OF OUTER SPACE AND NATIONAL SECURITY: FAULTLINES IN THE LAW

Weaponisation of space is a complex subject and there is little agreement in the international community as to how to even define it. Existing space laws are ambiguous and play little role in trying to regulate the rush into space with ever new capabilities justified in terms of national security by the few nations that can afford to do so technologically and economically. Dr. G.S. Sachdeva makes out a strong case for the legal regimen to "march in step, anticipate ensuing moves to provide appropriate solutions on time, rather than offer lame regrets later. The legal fraternity needs to expedite treaty making processes and compress preceding negotiations on contentious issues."

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# 6. BALLISTIC MISSILE DEFENCE: STRATEGIC ISSUES AND DILEMMAS

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Ballistic missile defence has been on the political, military and technological agenda of an increasing number of countries now. In this essay, Wing Commander **Anand Sharma** concludes that the debate on missile defence, about its viability and effectiveness against the threat of ballistic missiles, is settled in its favour not because defences have an edge over offensive weapons but due to the strategic compulsions, although ballistic missile defence (BMD) is yet to be proven in an actual battle scenario.

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#### 7. DEFENCE TRANSFORMATION: AN APPRAISAL

Brigadier P.K. Mallick examines the main issues confronting military transformation in today's world, especially in the developing countries. He believes that transformation goes far beyond mere structural or technological changes and is a "process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organisations that exploit the nation's advantages and protect against asymmetric vulnerabilities to sustain the strategic position, which helps underpin peace and stability in the world."