



Systems Engineering & Analysis (SEA) Integrated Project

An integral part of the SEA curriculum at NPS is the design and management of a campus-wide systems engineering project. SEA students are expected to apply their academic education to a challenging, "real world", open-ended design problem using a systems methodology and design approach. The students of SEA Cohort #10 (SEA-10) have begun their project, to be presented in December 2006, exploring the requirements and design for Joint Fires across the broad spectrum of users and providers.

JOINT FIRES 2015:

Rapid Response with Deadly Effects

Recent conflicts have highlighted deficiencies in the execution of unplanned fire support for forward elements. Requests for fire support are forwarded to the providers of that fire using obsolete procedures that continue to struggle to overcome functional and service boundaries. Although our forces have learned to overcome these challenges quickly, the execution of joint fire support continues to be an 'ad hoc' arrangement that is confounded by equipment compatibility, doctrinal, and procedural differences. The final 'cost' for relying on the in-place system is a significant delay between the request for fire support and the arrival of ordnance. The accuracy and effectiveness of those fires may also be in jeopardy because of the sluggish nature of the systems currently in place. The Joint Doctrine currently has already identified (Fig IV-1) the need for Joint Fires, but we haven't effectively executed this concept yet.

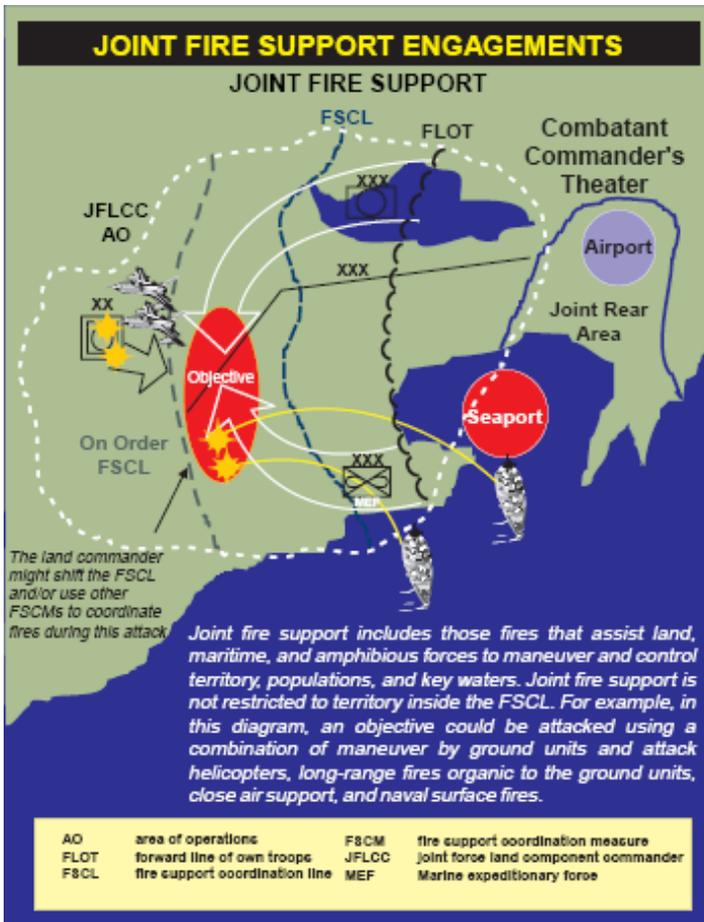


Figure IV-1. Joint Fire Support Engagements
[from Joint Pub 3-09, 12 May 1998]

SEA-10: *Joint Fires 2015*



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The SEA-10 project team is gathering input and attempting to identify key knowledge bases for further investigation. The topic under consideration is intentionally broad in this initial phase of study and it will be further defined, scoped, and bounded as the team improves their understanding of the needs of the users, the providers, and the decision makers. Your help is needed to ensure that this project becomes a thorough and complete investigation of this system and that it produces applicable and timely suggestions to interested agencies.

For more information on the SEA Integrated Design Project, visit www.nps.edu/Research/Meyer/Content/ISP.html

The SEA-10 project team is comprised of: 4 USN, 2 USAF, and 1 US Army officer. All have at least 10 years of operational experience in areas including: Close Air Support/Strike, Naval Surface and Sub-surface Warfare, Communications, Acquisition, and Engineering.