Improving Efficiency of Sustainment Operations for PM Cargo

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Abstract: The Project Office for Cargo Helicopters (PM Cargo) has created an integrated product team (IPT) to bring various organizations together to identify and discuss issues, share information/data, and attempt to develop solutions to sustainment challenges. This research develops a framework for the IPT in an effort to better manage the work processes of the team and standardize data analysis to support decision-making, while developing a network that conveys the shared responsibility of the organizations involved in PM Cargo sustainment operations. Using the systems decision process (SDP), a collaborative, iterative, and value-based decision process, this study develops an IPT framework and data analysis process that will allow the PM Cargo team to conduct sustainment operations more efficiently in support of U.S. Army Aviation.

Keywords: PM Cargo, Sustainment, Network Analysis, Integrated Product Team

1. Background

The Project Office for Cargo Helicopters (PM Cargo) is responsible for the life cycle management of the U.S. Army's CH-47 Chinook, the world's most advanced heavy lift rotary wing aircraft. There are currently 447 Chinook helicopters stationed around the world in support of conventional U.S. Army operations. One of the most challenging aspects of managing this fleet of Chinook helicopters is sustainment operations. The Army defines sustainment as “the provision of logistics, personnel services, and health service support necessary to maintain operations until successful mission completion” (Department of the Army, 2012). For PM Cargo, this means ensuring that there are enough Chinook helicopters operationally ready in order to support Army operations across the globe in the most cost effective way. There are various organizations, people, and data that support sustainment operations. PM Cargo has designated a product support manager (PSM) who is responsible for bringing together these various organizations to execute sustainment operations. The PSM’s primary responsibility is developing and implementing a product support strategy early in the acquisition process and throughout the life-cycle of the system (U.S. Department of Defense, 2016). At PM Cargo, the PSM has created an integrated product team (IPT) referred to as the Sustainment IPT or IPT, to bring together the different organizations involved in Cargo Helicopter sustainment operations for the purpose of information sharing, problem solving and decision making.

The Sustainment IPT at PM Cargo is in its infancy stage. Thus far, the PSM has held just two meetings, the first in August of 2016 and the most recent in February of 2017. This research analyzed the current processes of the IPT and developed a framework to better manage and standardize the work flow of the Sustainment IPT, in particular how they collect and analyze data, to support decision-making while further developing the network of participants that reflects the shared responsibility of the various organizations involved in PM Cargo sustainment operations.

2. Literature Review

Before examining the various organizations, people, and data involved in sustainment operations for PM Cargo, the team researched relevant material to help the study. The team looked at social network analysis (SNA) to better understand how relationships and interactions between people can make organizations and teams more effective. The next area of research focused on IPTs, in particular how and why they are formed. This background research, explained in greater detail below, helped form the basis for the team’s effort on behalf of PM Cargo.