

TRANSFER OF H-53 DEPOT HELICOPTER MAINTENANCE

Pensacola and Cherry Point NADEPs Identify ILS Elements As Critical Links in Successful Transitioning

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The 1993 Base Realignment and Closure (BRAC 93) Commission proceedings generated a plan to close three of the Department of Defense's six Naval Aviation Depots (NADEP). Among those targeted for closure was NADEP Pensacola, Fla., historically tasked with the depot-level maintenance, sustaining engineering, and logistics support required for all five H-53 helicopter variants employed by the U.S. Navy, U.S. Marine Corps, and U.S. Air Force.

Included in the plan was the assumption by NADEP Cherry Point, N.C., of the H-53 responsibilities previously exercised by the Pensacola depot. Transition managers recognized that BRAC 93 decisions could best be implemented with a plan emphasizing the 10 elements of Inte-

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A front close-up view of an MH-53J helicopter of the 21st Special Operations Squadron, equipped with the Pave Low infrared system for night operations, in flight near the English coast.

grated Logistics Support (ILS) cited in Department of Defense Instruction (DoDI) 5000.2, Part 7A: maintenance planning; manpower and personnel; supply support; support equipment; technical data; training and training support; computer resources support; facilities; packaging, handling, storage, and transportation; and design interface. This article will describe how three of these elements were used to identify and resolve critical transition management concerns.

Background

Managers tasked with orchestrating the H-53 workload transition from

NADEP Pensacola to NADEP Cherry Point used a guiding theme of 'invisibility to the fleet'. Their objective was to move depot responsibilities without impairing H-53 user operations. To attain the 'invisibility' goal, transition managers used precise documentation to maintain the desired focus on the 10 ILS elements.

All major transition planning documentation published since 1993 has evidenced the '10 ILS elements' focus by employing section titles either precisely in consonance with the DoDI 5000.2, Part 7A (as in the case of 'support equipment', 'facilities', or 'technical data'); or nearly so ('training' vice 'training and training support', 'personnel' vice 'manpower and personnel', and 'material support' vice 'supply support'). Throughout the planning stage, transition paperwork routinely addressed the balance of the elements, though under document headings less similar to current DoDI nomenclature. The scope of this article will be restricted by addressing only those logistics concerns related to ILS elements titled (in transition documentation) in strict accordance with DoDI 5000.2: support equipment, facilities, and technical data.

Support Equipment

From the outset, managers structured the transition of H-53 workload as a time-phased sequence. Both depots continued to conduct complementary measures of work for a prescribed length of time, with NADEP Pensacola's planned workload decline matched by a corresponding increase in workload at NADEP Cherry Point. However, the availability of necessary H-53 maintenance support equipment (SE) placed a constraint on dual-sited operations. Inductions of H-53 helicopters at Cherry Point had to be carefully timed to ensure that SE items held primarily at Pensacola were available, when needed, at Cherry Point. Exacerbating the SE shortage were even rarer resources of peculiar SE associated with only a limited number

of the five H-53 variants maintained within the DoD.

The simplest problem encountered in the area of support equipment involved items common not only to the H-53 fleet, but also to other aircraft already supported at Cherry Point. Though perhaps only a small number of such assets were on-hand (leading to obvious local-availability constraints), this circumstance was fairly tolerable. Generally, however, H-53-unique equipment problems required a more complex solution process.

When dual-sited work requirements precluded a permanent transfer of support equipment from Pensacola, Cherry Point managers investigated an additional set of options: other closing naval aviation facilities could be queried regarding availability of the needed item; a demand could be directed through standard naval supply system channels; a temporary loan could be arranged with fleet units; or a temporary loan could be arranged with NADEP Pensacola. These additional options routinely proved fruitful, satisfying SE needs involving general manufacturing, the rework of helicopter gearboxes and hydraulic components, and other critical processes. Ultimately, managers realized that until the transition of H-53 workload from NADEP Pensacola to NADEP Cherry Point was fully completed, the problems of sharing scarce support equipment would require continued attention.

Facilities

Like support equipment, facilities also demanded a great deal of management attention, and a successful transition could not have occurred without an early and rigorous application of facilities planning criteria. The H-53 is a large aircraft incorporating heavy and unwieldy components such as engines, rotor blades, and a massive main transmission. The NADEP Pensacola always dedicated a great deal of interior hangar and exterior parking space to H-53 maintenance



Photo by Staff Sgt. Dave Nolan, U.S. Air Force



Photo by Al Irwin

Vice Adm. William C. Bowes, then Commander of the Naval Air Systems Command, gives the keynote address to NADEP Cherry Point employees during the September 1994 Rollout Ceremony for the first H-53 helicopter to undergo depot-level maintenance at Cherry Point.

needs. Obviously, a similar amount of space was needed within NADEP Cherry Point confines — already fairly saturated with previously assigned work. The identification and assignment of an optimal facilities allocation (addressing hangar spaces, exterior spaces, and capabilities associated with those spaces such as overhead cranes, painting capabilities, or the suitability for engine runups, rotor engagements, and low-altitude flight testing) were accomplished only after detailed consideration of many factors.

Planning necessarily centered around the number of H-53 helicopters projected to be undergoing maintenance at Cherry Point at any particular time. From this estimate (between 12 and 15) a healthy number of facilities requirements was determined: the precise hangars to house the airframes undergoing standard depot-level maintenance (SDLM), the most significant of all planned maintenance activities; the storage areas to house components removed from an aircraft during either an SDLM or other maintenance process such as a limited modification; alterations to an existing automated bit part supply storage and retrieval facility; and alterations to numerous test facilities not config-

ured for component testing requirements unique to the H-53 (such as a rotor blade whirl tower previously configured to test blades far less massive and aerodynamic than those used on the western world's largest helicopter).

Not as closely linked to aircraft throughput were additional facilities considerations such as new construction. The existing Cherry Point spaces were simply not big enough to house the influx of additional people and equipment necessary for complete H-53 program support. New engineering, administrative, and storage buildings were therefore authorized. The judicious employment of existing spaces and eventual availability of new spaces were expected to fully satisfy facilities requirements brought about by the H-53 transition.

Technical Data

Finally, the depot transition highlighted technical data issues. In fact, transition documentation portrayed the planners' belief that "this ILS element [was] the most critical link in the establishment of capability at Cherry Point...[for] without proper identification of technical data requirements, organic capability [would not] be achieved." Intense consideration was

given to issues of technical data made particularly complex by the many differences in maintenance requirements, maintenance procedures, and platform components brought about by the existence of five aircraft variants operated by three different military Services.

Given the de facto *supporting* nature of technical data, its transfer from the closing Pensacola depot followed a pattern similar to that of support equipment. Data were transferred only when planners from Pensacola and Cherry Point were confident its transfer would not disrupt critical mission support at either depot. In cases where managers viewed remaining Pensacola requirements as impeding immediate and permanent transfer, they explored other solutions. On occasion, transition managers effected temporary loans of data between the two sites. At other times, they obtained needed documentation from some third source such as the Naval Technical Services Facility or the prime contractor (Sikorsky Aircraft Division of United Technologies Corporation). The identification, tracking, and resolution of all technical data transfer problems were possible only because initial planning included very specific identification of data needs.

Summary

The repositioning of H-53 depot workload from Pensacola, Fla., to Cherry Point, N.C., provided a real test of the efficacy of the 10 ILS elements. The transition has been less than perfect and fraught with many incredibly complex problems.

No one will ever know the number of additional problems precluded by deliberate application of established logistics principles. Surely there were some, and given the associated and possibly sinister repercussions for fleet operators, any number of pitfalls avoided wholly justified a systematic application of the 10 elements of Integrated Logistics Support.