

Appendix B – MISSION REQUIREMENTS DEVELOPMENT WORKSHEET

SCENARIO CT MISSION AREA Transport ENGAGEMENT FORCES Helicopter

| <i>Mission Phase</i> | <i>Functions Per Mission Phase</i> | <i>CT-Unique Functions Per Mission Phase</i> | <i>CT-Unique Functional Requirements</i> | <i>Critical Functional Parameters</i> | <i>Current Systems</i> | <i>Perceived Deficiency</i> | <i>Alternative Systems</i> |
|---|--|---|---|---|--|---|---|
| Planning | <ul style="list-style-type: none"> Implement Staff Plans | NONE | (Planning functions are the same as those of planning a small engagement in a Central European war. However, under shorter planning time constraints, the ability to rapidly examine multiple alternative enemy encounters can improve the probability of success.) | | | | <ul style="list-style-type: none"> Digital map based mission planning simulation |
| Rehearsal | <ul style="list-style-type: none"> Plan & Define Times; Location; Resources | <ul style="list-style-type: none"> Rehearse removal of 12 men from moving boat in minimum time | (Rehearsals are unique. Time available for rehearsal permits use of “real” equipment. Less time could result in incomplete practice.) | | | | <ul style="list-style-type: none"> Helo Cockpit simulator with programmable 180° real world conditions |
| Execution • Fly-out to Patrol Area and • Patrol (Loiter) | <ul style="list-style-type: none"> Communicate | <ul style="list-style-type: none"> Multi-Service Interoperability | LPI/D Communication | (The functions of communicating are routine. Performing the required communication with CT Team requires interoperability of the on-board equipment.) | | <ul style="list-style-type: none"> Multi-Service Interoperability? | |
| | <ul style="list-style-type: none"> Navigate | NONE | (Precision navigation at night is not unique.) | | | | |
| | <ul style="list-style-type: none"> Perform Flight Ops | NONE | (These functions are not unique. However, the combination of mission speeds, range, altitude and temperature could impose a constraint on response and available patrol time.) | | | | |
| | <ul style="list-style-type: none"> Perform Defense Activities | <ul style="list-style-type: none"> Maintain Situational Awareness | <ul style="list-style-type: none"> Detect Small Boats | <ul style="list-style-type: none"> Detection Range in dusty hot climate | <ul style="list-style-type: none"> Stabilized FLIR Radar | <ul style="list-style-type: none"> Availability of ECM & IRCM for SAMS & Manpads | |



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| Mission Phase | Functions Per Mission Phase | CT-Unique Functions Per Mission Phase | CT-Unique Functional Requirements | Critical Functional Parameters | Current Systems | Perceived Deficiency | Alternative Systems |
|---------------------|--|---|--|--|---|---|---|
| | | | | | | | |
| • Extract Personnel | • Communicate | • Multi-Service Interoperability | LPI/D Communication | (The functions of communicating are routine. Performing the required communication with CT Team requires interoperability of the on-board equipment.) | | • Multi-Service Interoperability? | |
| | • Navigate | NONE | (Precision navigation at night is not unique to LIW.) | | | | |
| | • Perform Flight Ops | • On-load CT Team & Ship Crew | <ul style="list-style-type: none"> • Locate ship • Remove 12 people • Lift-off moving boat • Perform at night • Detect swimmers if needed | <ul style="list-style-type: none"> • Time • Positive detect/ident of ship | <ul style="list-style-type: none"> • Sling attachment on helicopter • Hoist • Comm to ship • Stabilized FLIR • Radar | <ul style="list-style-type: none"> • Not able to lift 12 men at a time from moving ship • No means shown for detect/ident of ship | <ul style="list-style-type: none"> • Need helo with more lifting power or more helos assigned. • Multipurpose sling for removing 12 men. • Direct night viewing of sling below helo • Visual/RF detect/ident aid. |
| | <ul style="list-style-type: none"> • Perform Defense Activities <ul style="list-style-type: none"> – Threat Warning – Threat Defense | <ul style="list-style-type: none"> • Maintain Situational Awareness • Counter Threats | <ul style="list-style-type: none"> • Detect small boats • Identify correct ship • Engage small boat threats as needed | <ul style="list-style-type: none"> • Threat detection, ID, and weapon engagement ranges in dusty, hot, humid climate • Weapons load, range and accuracy • Available combat time | <ul style="list-style-type: none"> • Stabilized FLIR • Radar • NVG • 7.62 mm Minigun | <ul style="list-style-type: none"> • Possibly Minigun range less than weapons on threat • Availability of ECM • Availability of IRCM | <ul style="list-style-type: none"> • Multi-purpose longer range weapon • IRCM • ECM |