1. **SCOPE:**

   1.1 Title: Schedule and Associated Reports for Availabilities Over 9 Weeks in Duration; provide and manage

2. **REFERENCES:**

   2.1 Standard Items

3. **REQUIREMENTS:**

   3.1 Definitions.

   3.1.1 Production Schedule: The schedule used by contractor and subcontractor personnel as a means of planning, tracking, and coordinating the accomplishment of contract work.

   3.1.2 Activity: A portion of an individual Work Item which is a logical subdivision of the Work Item representing a manageable unit of work which must be accomplished at a specific period of time in relation to other activities of the Job Order.

   3.1.3 Key Event: An event that, if slippage occurs, could impact or delay the overall schedule. Key events may be identified by either the contractor or the SUPERVISOR.

   3.1.4 Milestone: A significant event identified by the Maintenance Team. Milestones may be identified by either the contractor or the SUPERVISOR.

   3.1.5 Critical Path: That sequence of activities which forms the longest duration, and directly affects the completion of the availability. Factors in determining critical path are: time duration required for the activity, space limitations, manpower available, and the interface between Work Item activities.

   3.1.6 Controlling Work Items: Those Work Items which are on the critical path of the Job Order and/or those Work Items which, by virtue of scope, material requirements, complexity, or other considerations, have the potential for impact on the scheduled project key events or completion of the availability.
3.1.7 Free Float: The amount of time an activity can move without impacting succeeding activities.

3.1.8 Total Float: The total number of days that a path of activities can be delayed without affecting the project finish date.

3.1.9 Logic Relationship defines an interdependence between activities.

3.1.10 Network: A graphic display showing the planned sequence and interdependent relationship of activities, milestones, or key events within the Job Order.

3.1.11 Resource: Labor and non-labor demands required to complete an activity. These may include personnel (trade skills), material, special tools, facilities, space, and equipment.

3.2 For Firm Fixed Price (FFP) Contracts: Prepare, provide, and submit one legible copy, in approved transferrable media, of an integrated Production Schedule to the SUPERVISOR for availabilities of 65 to 120 days in duration, no later than 15 days after contract award. For availabilities greater than 120 days in duration, provide no later than 30 days after contract award. The Production Schedule shall establish an orderly and systematic overhaul program that reflects the manner in which the project will be accomplished. The schedule shall be inclusive of key events, milestones, tests and all Alteration Installation Team (AIT), Ship's Force, Commercial Industrial Services (CIS), and Fleet Maintenance Activity (FMA) work.

3.2.1 Schedule each Work Item to the activity level listing the start and completion dates for each activity. Each activity shall be displayed to reflect its relevancy to the applicable key events and milestones as required in 3.4.

3.2.1.1 Schedule all required tests by Work Item. These required tests shall include but are not limited to: hydrostatic, operational, weight and safety device tests by the Job Order. List scheduled start and finish dates for each test. This list of tests shall be incorporated into the Integrated Total Ship Test Plan as required by 009-67 of 2.1.

3.2.2 Assign each activity in the Production Schedule a short title to describe the nature of the activity, system and equipment or machinery involved.

3.2.3 Schedule shall identify the critical path and controlling Work Items within the Job Order.

3.2.4 Identify the amount of total float available on each Work Item activity based on a 5-day workweek unless otherwise specified. Show
3.2.5 Revise the Production Schedule weekly to include additions, deletions, modifications, progress, and completions.

3.2.5.1 Submit one legible copy, in approved transferrable media, of the revised Production Schedule to the SUPERVISOR one day prior to the weekly progress meeting. Weekly network revision submission can be in a current schedule status report, production agenda or a production report column format as agreed to by the Maintenance Team. Weekly network submission format shall be designated by the SUPERVISOR based on the Maintenance Team agreed to format.

3.2.6 Submit one legible copy, in approved transferrable media, of the Production Schedule to the SUPERVISOR 3 days prior to the 25, 50, and 75 percent points in the availability. Production Schedule submission shall be in a Gantt chart format.

3.3 For Cost Plus Contracts for CNO availabilities greater than 9-weeks: Prepare, provide and submit one legible copy, in approved transferrable media, of an integrated Production Schedule to the SUPERVISOR no later than the dates specified in 3.3.1. The Production Schedule shall establish an orderly and systematic overhaul program that reflects the manner in which the project will be accomplished. The schedule shall be inclusive of milestones and key events, tests and all AIT, Ship’s Force, CIS and FMA work.

3.3.1 Production Schedule submission dates:

<table>
<thead>
<tr>
<th>TYCOM</th>
<th>CNO Availability (A-days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>A-30</td>
</tr>
<tr>
<td>Carriers</td>
<td>A-60</td>
</tr>
<tr>
<td>Submarines</td>
<td>A-60</td>
</tr>
</tbody>
</table>

3.3.2 Schedule each Work Item to the activity level listing the start and completion dates for each activity. Each activity shall be displayed to reflect its relevancy to the applicable key events and milestones as required in 3.4.

3.3.2.1 Schedule all critical tests by Work Item. These tests shall include but are not limited to: hydrostatic, operational, weight and safety device tests by the Job Order. List scheduled start and finish dates for each test. This list of tests shall be incorporated into the Integrated Total Ship Test Plan as required by 009-67 of 2.1.

3.3.3 Assign each activity in the Production Schedule a short title to describe the nature of the activity, system or equipment involved.

3.3.4 Schedule shall identify the critical path and controlling Work Items within the Job Order.
3.3.5 Identify the amount of total float available on each Work Item within the Job Order based on a 5 day work week unless otherwise specified. Show early and late start and early and late finish dates as designated by the SUPERVISOR.

3.3.6 Revise the Production Schedule weekly to include additions, deletions, modifications, progress, and completions.

3.3.6.1 Submit one legible copy, in approved transferrable media, of the revised Production Schedule to the SUPERVISOR one day prior to the weekly progress meeting. Weekly network revisions submission can be in a current schedule status report, production agenda or a production report column format as agreed to by the Maintenance Team. Weekly network submission format shall be designated by the SUPERVISOR based on the Maintenance Team agreed to format.

3.3.7 Submit one legible copy, in approved transferrable media, of the Production Schedule to the SUPERVISOR 3 days prior to the 25, 50, and 75 percent points in the availability. Production Schedule submission shall be in a Gantt chart format.

3.4 Prepare a time-oriented work package network in Gantt chart format that displays critical path Work Items and controlling Work Items, key events, milestones, and Work Items that interrelate with controlling Work Items. Display critical path and controlling Work Items at the activity level.

3.4.1 The network may be partitioned into sub-networks by key events, milestones, ship's system, ship area, or other logical divisions.

3.4.1.1 The following data elements are required to allow for filtering and sorting for ad hoc extraction of network data. These data elements shall be entered at the Work Item activity level or the lowest Work Breakdown Structure (WBS) activity level, as appropriate. These data elements shall include but are not limited to:

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alteration Number</td>
<td>Ship Alteration Number</td>
</tr>
<tr>
<td>Component</td>
<td>Component Unit (tank, valve, motor, pump, etc.)</td>
</tr>
<tr>
<td>Hot Work</td>
<td>Yes or No (Yes, if hot work is associated with task)</td>
</tr>
<tr>
<td>ICN</td>
<td>Industrial Control Number (ICN): only required for reporting to naval shipyard AIM/PSS system</td>
</tr>
<tr>
<td>JCN</td>
<td>JCN (filter on work center)</td>
</tr>
<tr>
<td>Key Event</td>
<td>Key Event or Milestone</td>
</tr>
<tr>
<td>Key Trade</td>
<td>Key Trade involved in task</td>
</tr>
<tr>
<td>Location</td>
<td>Work location/compartment number (deck/frame/Port or Stbd)</td>
</tr>
<tr>
<td>Maintenance Provider</td>
<td>MSR/Contractor/Subcontractor/AIT/CIS/etc.</td>
</tr>
</tbody>
</table>
3.4.1.2 Submit one legible copy, in approved transferrable media, of an extraction or ad hoc type report sorted by network data elements specified in 3.4.1.1 when requested by the SUPERVISOR.

3.4.2 The network or any sub-network thereof may be continued on additional pages. Each page of the network or sub-networks shall be clearly identified and show all off page interdependencies.

3.4.3 Label each Work Item, activity, milestone, and key event of the network with the activity or event identifier (ID) and title.

3.4.4 Submit one legible copy, in approved transferrable media, of the network to the SUPERVISOR in accordance with the requirements of 3.2.5.1 or 3.3.6.1 as applicable.

3.4.5 Revise the network weekly in support of the weekly Production Schedule revisions of 3.2.5 and 3.3.6. Weekly network revision submission can be in a current schedule status report, production agenda or a production report column format as agreed to by the Maintenance Team. Weekly network submission format shall be designated by the SUPERVISOR based on the Maintenance Team agreed to format.

3.4.5.1 Each revised network shall be available for review by the SUPERVISOR.

3.4.5.2 Submit one legible copy, in approved transferrable media, of the revised network to the SUPERVISOR at the 50 percent point in the availability. The SUPERVISOR may, at his discretion, designate the submittal of a revised network at 2 other times during the availability.

3.5 Provide milestone and key event listing.

3.5.1 After development of the schedule and network, generate a listing of milestones and key events, showing for each: Event Title, Original Schedule Date, Revised Schedule Date, and Actual Date of Accomplishment.

3.5.1.1 The revised schedule date and actual date of accomplishment shall be left blank on the initial submission and filled in to reflect actual conditions on subsequent submission of the listing.
3.5.1.2 Submit one legible copy, in approved transferrable media, of the milestone and key event list to the SUPERVISOR in accordance with the requirements of 3.2 or 3.3 as applicable, and provide subsequent weekly reports to the SUPERVISOR reflecting contemporary contract performance.

3.6 Provide manpower management information.

3.6.1 Develop a total manpower loading curve showing proposed manning throughout the contract period calculated in men per day. The curve shall indicate that portion of the total that is subcontractor provided.

3.6.2 Develop individual key trade manpower curves showing proposed manning by trade throughout the contract period in men per day. The curves shall indicate that portion of the total that is subcontractor provided.

3.6.3 Prepare a weekly manpower utilization report showing total mandays expended during the previous week, indicating that portion of the total that is subcontractor provided. Indicate the number of days worked during the previous week.

3.6.4 Submit one legible copy, in approved transferrable media, of the manpower curves developed in 3.6.1 and 3.6.2 to the SUPERVISOR in accordance with the requirements of 3.2 or 3.3 as applicable.

3.6.5 Update the manpower curves of 3.6.1 and 3.6.2 when the schedule and network revisions are completed.

3.6.5.1 Submit one legible copy, in approved transferrable media, of the updated manpower curves to the SUPERVISOR at the 25, 50, and 75 percent points in the availability.

3.7 Coordinate and schedule subcontractor's performance with respect to work progress, material procurement, and AIT, Ship's Force, CIS and FMA interface control to support the Production Schedule.

3.7.1 Submit one legible copy, in approved transferrable media, of a complete list of subcontractors, by Work Item to the SUPERVISOR at the same time the Production Schedule is submitted. The subcontractor list shall include:

3.7.1.1 Work Item paragraph number

3.7.1.2 Specific work to be accomplished

3.7.1.3 Subcontractor's business address

3.7.2 Submit one legible copy, in approved transferrable media, of a report to the SUPERVISOR of any change to the original list prior to making the change, whenever any subcontractor is added or deleted.
3.8 Provide cognizant shipyard management representation to participate in the weekly progress meeting at the time and location mutually agreeable to all parties. The representative must be authorized to make management decisions relative to the routine requirements of the Job Order that, in good faith, commit the contractor. AIT Managers and/or On-Site Installation Coordinators (OSIC) shall participate and represent respective alteration teams in scheduled weekly progress meetings.

3.8.1 Submit one legible copy, in approved transferrable media, of the following information to the SUPERVISOR one working day prior to the weekly progress meeting:

3.8.1.1 The manpower utilization data required by 3.6.3.

3.8.1.2 A report listing for each Work Item of the Job Order, the Work Item number, Work Item title, scheduled start date, scheduled completion date, actual start date, and the percentage complete. The report shall address changes to the milestones and key events list and major problems of each Work Item and proposed corrective action. The Work Items shall be listed in increasing order, by Work Item number. The report shall reflect the addition, deletion, or modification of Work Items. Completed Work Items need not be addressed.

3.8.1.3 The revised weekly Production Schedule required by 3.2.5 or 3.3.6 as applicable.

3.9 Provide a representative whose function is to coordinate and schedule the entry of AIT, Ship's Force, CIS, and FMA work with contractor work into the contractor Master Schedule.

3.9.1 Representative shall meet with the AIT, Ship's Force, CIS, and FMA at 6 months but no later than 5 days prior to availability start date and then daily thereafter commencing on the first day of the availability to compare and coordinate programmed AIT, Ship's Force, CIS, and FMA work with the contractor’s Master Schedule. The representative shall submit a report at the weekly progress meeting of conflicts where programmed AIT, Ship's Force, CIS, and FMA work interferes with the contractor schedule.

3.9.2 Coordinate AIT, Ship's Force, CIS, and FMA work integration into the contractor’s Master Schedule prior to setting baseline dates.

3.9.3 Representative shall identify at the weekly progress meeting schedule conflicts where programmed AIT, Ship's Force, CIS, and FMA work interferes with previously scheduled contractor work.

3.9.4 Representative shall identify at the weekly progress meeting required AIT, Ship's Force, CIS, and FMA prerequisite actions necessary to support contractor testing and equipment operation schedule.

3.10 Participate in review conferences at the 25, 50, and 75 percent points in the availability. Data required to be provided at the 25, 50, and
75 percent points will be used at the review conferences. The conferences will be scheduled at a time and place mutually agreeable to all parties. The contractor shall:

3.10.1 Be prepared to discuss planned production manning versus actual production manning by total, individual key trades and subcontractors.

3.10.2 Address known factors that may impact key events, milestones and the contract completion. Provide recommended courses of action to resolve problem areas.

3.10.3 Two days prior to the 25 percent review conference, provide the SUPERVISOR with the status of open and inspect reports and be prepared to discuss possible impact of growth in these items at the 25 percent review conference.

3.10.4 Three days prior to the 50 percent review conference, provide the SUPERVISOR with the following:

3.10.4.1 A machinery reinstallation plan showing projected dates for installing the equipment on the foundation, hook-up of the equipment, and operational tests of the equipment.

3.10.4.2 A valve status list showing projected completion and reinstallation dates.

3.10.4.3 A list of items not complete that are required for Production Completion Date (PCD), formerly known as machinery space turnover. Annotate those items on the list that may be in jeopardy of completing by PCD.

3.10.5 Submit one legible copy, in approved transferrable media, of a test schedule for all planned underway equipment and system testing to the SUPERVISOR 2 days prior to the 75 percent review conference.

4. **NOTES:**

4.1 The SUPERVISOR will provide the AIT, Ship's Force, CIS, and FMA availability data required in 3.9.

4.2 When invoked, the following Standard Items interface with this Standard Item: 009-43, 009-44, 009-66, 009-67 and 009-81.