

NAVSEA
STANDARD ITEM

FY-23

ITEM NO: 009-111
DATE: 01OCT 2021
CATEGORY: I

1. SCOPE:

1.1 Title: Schedule and Associated Reports for non-CNO Availabilities; provide and manage

2. REFERENCES:

2.1 Standard Items

2.2 S9AA0-AB-GOS-010, General Specifications for Overhaul of Surface Ships (GSO)

3. REQUIREMENTS:

3.1 Develop an initial Integrated Production Schedule (IPS) for work packages in duration that reflects the manner in which the availability will be accomplished. The IPS must:

3.1.1 Schedule each Work Item to the Work Activity level listing the start and completion dates, and durations for each Work Activity.

3.1.1.1 Assign each Work Activity in the IPS a short title to describe the nature of the Work Activity, system and equipment or machinery involved.

3.1.1.2 Integrate all provided Alteration Installation Team (AIT), Government-Contracted Third Party Maintenance Provider, Ship's Force, Commercial Industrial Services (CIS), and Fleet Maintenance Activity (FMA) work. The SUPERVISOR will provide, or direct provision, of the AIT, Government-Contracted Third Party Maintenance Providers, Ship's Force, CIS, and FMA availability data required for schedule integration.

3.1.2 Scheduled Key Events and Milestones.

3.1.2.1 Assign appropriate predecessor relationships to each work activity, Key Event, and Milestone(s) to ensure there is an accurate logical progression through all Work Activities leading to their assigned Key Event and Milestone(s), to ensure the IPS supports accurate prediction of Key Event and Milestone(s) attainment.

3.1.3 Critical Path and Controlling Work Items.

3.1.4 Scheduled start and completion dates of all Stage 3 through Stage 6 required tests. Test Stages are defined in Section 092 of 2.2.

3.2 Revise Production Schedule/IPS at the Work Activity level weekly to include info provided in 3.1.1.2 for AIT work, additions, deletions, modifications, actual start and finish dates, progress, and completion of Work Items. Progress must be based on degree of completion of physical work or accomplishment of the Work Activity.

3.3 Provide contractor representation to participate in the weekly progress meeting at the time and location agreed to by the SUPERVISOR. The representative(s) 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) must participate and represent respective alteration teams in scheduled weekly progress meetings.

3.3.1 Weekly progress meeting participants must be prepared to address Critical Path and Controlling Work Items, and offer reasonable solutions to problems which may have impact on scheduled Key Events and Milestones or completion date. Contractors scheduled work, AIT work and Ship's Force work must be discussed to support and de-conflict any testing and equipment operation scheduled.

3.4 Develop one legible copy, in approved transferrable media, of an availability status report that includes the revised IPS in accordance with Table 1. **Note: some requirements may be submitted as separate attachments as specified within the table.**

Table 1
Activity Data Elements and Descriptions.

Data Element	Description	All Non-Combatant Craft and Combatant Craft Availabilities less than 36 days	Combatant Craft Availabilities 36 days or greater
Work Item Number (as appropriate)	4-E specification Work Item number	X	X
Title	Descriptive title of Work Item and Work Activity	X	X
Key Event	Key Event applicable to the Work Activity (See 4.1.6)		X
Milestone (as appropriate)	Milestone applicable to the Work Activity (See 4.1.7)		X
System (as appropriate)	System(s) affected		X
Component (as appropriate)	Component Unit (For example: tank, valve, motor, pump)		X

Location	Work location/compartament number		X
Executing Activity	ID specific organization: Prime KTR, Sub-KTR, FMA, SMMO, AIT, or OSIC	X	X
Early Start	Software determined date (See 4.1.15)	X	X
Early Finish	Software determined date (See 4.1.16)	X	X
Actual Start	Actual date for the Work Activity's start	X	X
Actual Finish	Actual date for the Work Activity's finish	X	X
Percent Complete (Actual)	Degree of completion based on the Work Activity's work scope and degree of accomplishment of production labor.	X	X
Duration	The total number of work periods required to complete a Work Activity.	X	X
Calendar Identification	Number of scheduled workdays per week	X	X
Total Float	The total number of workdays that the Contractor can delay a Work Activity without affecting the project finish date.	X	X
Predecessor	An Activity or Event that immediately precedes one or more Activities or Events with a direct tie in the Total Project Network. Every Activity and Event in the Total Project Network must have at least one Predecessor (except Start Availability).	X	X
Successor	An Activity or Event that immediately follows one or more Activities or Events with a direct tie in the Total Project Network. Every Activity and Event in the Total Project Network must have at least one Successor (except Complete Availability).	X	X
Constraints	Constraints used as applicable to Work Item or Work Activity. This may be provided within the predecessor or successor field.		X
Incomplete GFI Report	Provide an updated list of all GFI not received by the contractor. This submittal does not have to be in the IPS but can be a stand-alone document.	X	X

Planned Progress Percent	The contractor is to provide an overall availability planned progress percent. This submittal does not have to be in the IPS but can be a stand-alone document.	X	X
Actual Progress Percent	The contractor is to provide an overall availability actual progress percent. This submittal does not have to be in the IPS but can be a stand-alone document.	X	X

3.5 If requested by the SUPERVISOR, provide contractor representation to participate in a review conference to be held at the 50-percent progress in the availability.

3.5.1 Data from the most recent submission in accordance with 3.2 and 3.4 will be used at the review conference. Review conferences will be held simultaneously with the Weekly Progress Meeting. The conferences will be scheduled at a time and place mutually agreeable to all parties.

3.6 Submit the following reports to the SUPERVISOR as listed in Table 2 in the specified format and timeline.

Table 2 Schedule Submission Requirements:

ID Number	Requirements	Title	Format	Due
3.6.1	3.1 Per Table 1	- Initial IPS - Incomplete GFI Report	.xls or .pdf or native format	The earlier of Avail Start -5 or after contract award +5
3.6.2	3.4	- Availability Status Report	.xls or .pdf or native format	Weekly after A-0, one day prior to progress meeting

4. NOTES:

4.1 Definitions.

4.1.1 Critical Path Method: *The critical path method is used to derive the critical activities—that is, activities that cannot be delayed without delaying the end date of the program. The amount of time an activity can slip before the program’s end date is affected is known as “total float.” Additionally, the critical path method* for planning and executing complex, interdependent projects that identifies the Critical Path to each Key Event and

Milestone using automated Network Analysis Tools. ***Unless the IPS represents the entire scope of effort and the effort is correctly sequenced through network logic, the scheduling software will report an incorrect or invalid critical path. That is, the critical path will not represent the activities affecting the program finish date. With no accurate critical path, management cannot focus on the activities that will be detrimental to the program's key milestones and finish date if they slip.***

4.1.2 Stage Testing: Conducted by using stages of testing for the progressive validation of the proper installation and performance of equipment and systems. Test Stages are identified in 009-67 of 2.1.

4.1.3 Integrated Production Schedule (IPS): A schedule used by the contractor as a means of planning, tracking, coordinating and de-conflicting work during the availability. It incorporates all work planned for accomplishment during the maintenance availability including; Alteration Installation Team (AIT), Government-Contracted Third Party Maintenance Providers, Ship's Force, Commercial Industrial Services (CIS), and Fleet Maintenance Activity (FMA) work. ***An IPS connects all the scheduled work of the government and the contractor in a network, or collection of logically linked sequences of activities. The sequences clearly show how related portions of work depend on one another, including the relationships between the government and contractors.***

4.1.4 Work 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.

4.1.5 Duration: The total number of work periods (not including holidays or other nonworking periods) required to complete a scheduled Work Activity.

4.1.6 Key Event: An event that, if slippage occurs, could impact or delay the overall schedule, or prevent timely delivery of the vessel.

4.1.7 Milestone: Milestones are used as a scheduling aid and establish significant points where progress must be evaluated and confirmed. Accumulated failure to achieve Milestones on schedule may result in missed Key Events.

4.1.8 Critical Path: That sequence of Work Activities which forms the work and test chain of the longest duration, and directly affects the completion of the availability. Factors that influence when a Work Activity is on the Critical Path include: time duration required for the Work Activity, space limitations, manpower available, and the predecessor/successor relationships between Work Activities. The Critical Path is determined by automated schedule analysis and will include any sequential set of Work Activities forming the longest chain of events extending throughout the schedule and which has the least Total Float.

4.1.9 Controlling Work Items: Those Work Items which include activities that are on the critical path of the IPS, which, by virtue of scope, material requirements, complexity, or

other considerations, have the significant potential for impact on the scheduled project Key Events or completion of the availability.

4.1.10 Total Float: The total number of days that the Contractor can delay a Work Activity without affecting the project finish date. A path of Work Activities is established by predecessor and successor relationships.

4.1.11 Logic Relationship: Defines an interdependence between Work Activities. It is established by assigning predecessor and successor relationships to Work Activities using the functionality provided by project scheduling software. An individual Work Activity will frequently have more than one predecessor or more than one successor.

4.1.12 Baseline Start or Baseline Finish. The date identified in the IPS when the contractor plans to start or finish (respectively) the Work Activity. This may be established by a controlled schedule baseline (preferred method) or by manual entry into the scheduling software according to contractor policy/practice.

4.1.13 Planned progress percent. Baseline progress of work to be completed based on planned start and planned finish dates.

4.1.14 Actual Progress percent. Degree of *overall availability* completion based on the work scope and degree of accomplishment of production labor.

4.1.15 Early Start: The earliest point in time that a Work Activity may start based on the IPS network logic and any other schedule constraints. Early start dates may change as the availability progresses.

4.1.16 Early Finish: The earliest point in time that a Work Activity may be completed based on the IPS network logic and any schedule constraints. Early finish dates may change as the availability progresses

4.1.17 Integration: The incorporation of all work (including testing and availability work certification) for all organizations involved in an availability.

4.1.18 Negative Float: The amount of time by which the early start or finish dates of a Work Activity exceeds its late start or ending dates. The quantity of float then indicates the amount of time that must be recovered in order to achieve an imposed date.

4.1.19 Hard Constraint: A Mandatory Start or Finish date imposed on an activity, i.e. the activity becomes fixed to that date. Typically expressed as the activity Must Start On (MSO) or Must Finish On (MFO) the given date. Hard Constraints prevent their associated activity from being logic-driven.

4.1.20 Lags and Leads. Lags and Leads are scheduling functions used to represent a gap (Lag) or overlap (Lead) between activities. The use of Lags and Leads must be controlled to ensure they support an accurate and logical work flow. Improper and overuse of Lags and Leads

can have a detrimental effect on a logic driven schedule and adversely affect float and the Critical Path. Typical examples where their use may be warranted include: insertion of time delay to represent report cycle time, staggering unrelated work item start dates, or drive work based on material receipt projection.

4.1.20.1 Lag: The delayed start of a successor activity and represents time that must pass before the second activity can begin.

4.1.20.2 Lead: The accelerated start of a successor activity where there is a finish to start relationship. The second activity can begin and be conducted in parallel with the first activity.