# TST 203

# Pre-Work Template

**TST 203 SPAW Pre-work Exercise – Congratulations!** You have enrolled in TST 203, the Intermediate Test & Evaluation (T&E) course. A key objective of this course is to enable you to perform test & evaluation duties for DoD acquisition programs. To assist you in benefiting most from this training, we have provided some background material about a fictitious system called the Self-Propelled Artillery Weapon (SPAW). We will use this fictitious system throughout the course as we relate the DoD T&E process.

We have also provided you with a short tutorial on artillery weapons to help you better understand terminology and the typical issues involved with operating artillery weapons. Unless you are a trained Field Artilleryman, please read the SPAW Tutorial information.

The background material we have provided to you describes the operational environment and requirements, other possible alternatives, and the important parameters used in the selection of the system. This background material also covers the major technological challenges and approach to maturing the technology. Since the system is fictitious, the material is not complete. Portions of the documents were omitted, and some of the information was adjusted to emphasize key T&E concepts.

Your pre-work, graded task is to read the following documents and extract the key operational, technical, and programmatic requirements for the SPAW system.

· ICD -  Initial Capabilities Document
· AoA – Analysis of Alternatives
· OCD – Operational Concept Description
· TDS – Technology Development Strategy

From these documents, you should be able to find at least five different system requirements from the following areas:

1. <u>Operational</u> – These are user requirements that specify what the system must do in the field.
2. <u>Technical</u> – These are requirements relating to the design of the system or key subsystems and they support the systems engineering process.
3. <u>Programmatic</u> – These are requirements that focus on cost, schedule, and/or performance. (Note: While Operational and Technical requirements also address performance, the programmatic performance requirements are the ones that relate to major milestones or are used to assess the progress of the program).

As you identify the system requirements, it may be helpful to ask yourself the following questions:
- What does the system have to do?
- How well does it have to do it?
- What environment does it have to operate in?

**Directions -** Fill in the following table and provide at least five requirements for the SPAW system.  Provide at least one requirement in each of the Operational, Technical, and Programmatic areas.  The other two requirements can be from any of the three areas.  Each line in the matrix should be completed with the requested information.

**Name**: (Fill in your name here.) _____Edward Martin_____

**Class dates:** (Fill in this information.) _____23-27 Jan 2012_____

**Class location:** (Fill in this information.) _____Lakehurst, NJ_____

**SPAW Requirements: (1 point for each line of the matrix filled-in correctly)**

| Document | Requirement | Value | Operational, Technical, Programmatic |
|---|---|---|---|
| From what document did the requirement come from? | What is the requirement? (Transportability, Crew size, Availability, etc.)? | What is the required value? | Is it an operational, technical, or programmatic requirement? |
| ICD | Worldwide Transportability | < 72 Hours | Operational |
| OSD | Firing Direcion | 360 degree | Technical |
| TDS | Demonstrated Firing Range | > 30,000m | Programmatic |
| ICD | Maximum Firing Range | > 34,000m | Operational |
| ICD | Allweather Operation | Tropic/Desert/ Artic | Operational |

After obtaining the list of operational, technical, and programmatic requirements, please answer the following questions:

1. Were the same requirements found in different documents? (Provide one example). (1 Point)

    Yes, worldwide transportibility (by C-17) was in both the AoA and ICD.

2. Was the same requirement in two different documents, but different in value? (Provide one example). (1 Point)
    Yes, the Maximum Firing range was in the ICD (34km) and TDS (30km), but had different values.


    3. From a testers perspective, which of the four documents (ICD, AoA, OCD, TDS), provided you with the most information? Provide a discussion of at least 50 words to support your answer. (3 points)

    The TDS provided the most information. This document contained the specifications that the project was going to build to, and ultimately test to. The other documents contained more detailed specs however the numbers provided in those specs were not the numbers that the tester would test to. An example of this is the firing range, the ICD and TDS both contained the firing range, but the TDS says "demonstrated firing range" while the ICD says "maximum firing range", a test of the riging range is probably going to by by demonstartionh and will have to use the demonstarted value, the ICD does not contain this.

Please keep a copy of the matrix and your answers to the questions for yourself and

bring them to class with you as a reference document.  You will use these during the course. This assignment is worth a maximum of 10 points towards your 100 point maximum    TST 203 grade.