Raytheon Supplier Rating System (SRS)

Overview and Ratings Guide

Dated 04-01-19
• This guide provides an overview of the Raytheon Supplier Rating System (SRS). It is designed to describe the system, its elements, and how performance ratings are determined.

• All ratings are based on a rolling 12 month window of data. Ratings are based on data provided every two weeks by individual Raytheon business units. Reports are available on approximately the beginning and middle of each month.

• A key feature of SRS is the Supplier Performance Relationship Report (SPRR). The SPRR represents the Quality and Delivery performance of Raytheon suppliers. Reports are posted internally at Raytheon and on the external SRS website for access by suppliers. Suppliers only have access to their reports and data regarding their company’s performance. Reports are refreshed twice a month (generally available by the 5th and 20th of each month).

• The rating algorithms are the same across all Raytheon business.

• On Time Delivery is based on Raytheon business days.

• Internally, if you require assistance beyond this document, please contact your Raytheon SRS Business POC. If suppliers need assistance, contact your cognizant Raytheon buyer.
What is the Supplier Rating System (SRS)?
- SRS is Raytheon’s company wide system integrating procurement, receiving, quality, inspection and qualitative information across Raytheon.
- SRS provides Raytheon with a consistent method of rating suppliers to determine supplier performance and support the supplier selection process.
- SRS provides Raytheon and suppliers visibility into critical performance data and presents one Raytheon face to our supplier base.

Why is SRS Important?
- SRS provides a consistent method of rating suppliers and allows Raytheon to present one face to our suppliers.
- Sharing SRS performance ratings with our suppliers opens lines of communication, leading to improved relationships and healthy competitive supplier behavior.
- Use of SRS supports the supplier selection process, which can reduce program risks and operating costs.
Supplier Rating Elements

- There are two types of ratings a supplier may receive as part of the Supplier Rating System (SRS):

<table>
<thead>
<tr>
<th>Rating Type</th>
<th>Applicability</th>
<th>Criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantitative Rating</strong></td>
<td>All suppliers</td>
<td>Quality</td>
<td>60%</td>
</tr>
<tr>
<td><strong>SPRR</strong></td>
<td></td>
<td>Delivery</td>
<td>40%</td>
</tr>
<tr>
<td><strong>(Supplier Performance Relationship Report)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Qualitative Rating</strong></td>
<td>Completed As Required by each Business or Program</td>
<td>Price/Cost</td>
<td></td>
</tr>
<tr>
<td><strong>QDI</strong></td>
<td></td>
<td>Schedule/Delivery</td>
<td></td>
</tr>
<tr>
<td><strong>(Qualitative Data Input)</strong></td>
<td></td>
<td>Technical</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality/Mission Assurance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business/Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Weightings Assigned by Lead Evaluator with Key Criteria Weightings Totaling 100%</td>
</tr>
</tbody>
</table>
Roadmap to Excellence

• Stratifying the Supply Base based on supplier performance:

Supplier Performance Relationship Report (SPRR) Ratings

<table>
<thead>
<tr>
<th>Supplier Performance Levels</th>
<th>Supplier Rating Levels %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptional</td>
<td>95.0 - 100</td>
</tr>
<tr>
<td>Good</td>
<td>90.0 - 94.9</td>
</tr>
<tr>
<td>Marginal</td>
<td>85.1 - 89.9</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>0.0 - 85.0</td>
</tr>
</tbody>
</table>

Qualitative Data Input (QDI) Ratings

<table>
<thead>
<tr>
<th>Supplier Performance Levels</th>
<th>Supplier Rating Levels %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceptional</td>
<td>&gt;=3.61</td>
</tr>
<tr>
<td>Very Good</td>
<td>3.21 - 3.6</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>2.81 - 3.2</td>
</tr>
<tr>
<td>Marginal</td>
<td>2.41 - 2.8</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>0 - 2.4</td>
</tr>
</tbody>
</table>
Quantitative Rating Element Details

Supplier Performance Relationship Report (SPRR)
Supplier Performance Relationship Reports (SPRR)

- RTN users can access SPRR reports from the RTN SRS home page.

- Supplier users must log on to Exostar to access their SPRR reports via the Supplier Rating System link (contact your Raytheon Buyer for more information regarding access).

> The SPRR is the most convenient way for a supplier to determine how they are performing for Raytheon.

<table>
<thead>
<tr>
<th>Supplier Rating System</th>
<th>Marginal / Needs Improvement: YELLOW</th>
<th>Marginal / Needs Improvement: YELLOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Rating 1 Month</td>
<td>Good: GREEN</td>
<td>Good: GREEN</td>
</tr>
<tr>
<td>Quality Rating 3 Month</td>
<td>Exceptional: BLUE</td>
<td>Exceptional: BLUE</td>
</tr>
<tr>
<td>Quality Rating 12 Months</td>
<td># of Source Inspection Failures: 0</td>
<td># of Source Inspection Failures: 0</td>
</tr>
<tr>
<td></td>
<td># of Incoming Failures: 0</td>
<td># of Incoming Failures: 0</td>
</tr>
<tr>
<td></td>
<td>Total Weighted Failures: 2981.4</td>
<td>Total Weighted Failures: 2981.4</td>
</tr>
<tr>
<td></td>
<td>Quality Parts Received: 55,350</td>
<td>Quality Parts Received: 55,350</td>
</tr>
<tr>
<td></td>
<td>PPM: 12 Months: 53,900</td>
<td>PPM: 12 Months: 53,900</td>
</tr>
<tr>
<td></td>
<td>Quality Lots Accepted: 746</td>
<td>Quality Lots Accepted: 746</td>
</tr>
<tr>
<td></td>
<td>Quality Lots Received: 746</td>
<td>Quality Lots Received: 746</td>
</tr>
<tr>
<td></td>
<td>LAR: 12 Months: 100.0%</td>
<td>LAR: 12 Months: 100.0%</td>
</tr>
<tr>
<td></td>
<td>Total SCAI: 12 Months: 3</td>
<td>Total SCAI: 12 Months: 3</td>
</tr>
<tr>
<td></td>
<td>SCAI Impact: 12 Months: 6.0</td>
<td>SCAI Impact: 12 Months: 6.0</td>
</tr>
<tr>
<td></td>
<td># of Level 1 SCAIs: 1</td>
<td># of Level 1 SCAIs: 1</td>
</tr>
<tr>
<td></td>
<td># of Level 2 SCAIs: 2</td>
<td># of Level 2 SCAIs: 2</td>
</tr>
<tr>
<td></td>
<td># of Level 3 SCAIs: 0</td>
<td># of Level 3 SCAIs: 0</td>
</tr>
<tr>
<td>Delivery Rating 1 Month</td>
<td>Marginal / Needs Improvement: YELLOW</td>
<td>Marginal / Needs Improvement: YELLOW</td>
</tr>
<tr>
<td>Total Lots Received On-time 1 Mon: 93</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Lots Due 1 Mon: 106</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Lots Past Due 1 Mon: 3</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Delivery Rating 3 Month: 93.3%</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Total Lots Received On-time 3 Mon: 253</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Lots Due 3 Mon: 270</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Lots Past Due 3 Mon: 1</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Delivery Rating 12 Month: 94.9%</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Total Lots Received On-time 12 Mon: 971</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Lots Due 12 Mon: 1,022</td>
<td>Good: GREEN</td>
<td></td>
</tr>
<tr>
<td>Lots Past Due 12 Mon: 1</td>
<td>Good: GREEN</td>
<td></td>
</tr>
</tbody>
</table>

This system and its use are intended for the initiation and management of supplier performance information. It contains supplier information that should not be disclosed outside of Raytheon or to individuals or entities within Raytheon that may compete against such suppliers, if such disclosure will afford such Raytheon individuals or entities an unfair competitive advantage against such suppliers.
Quantitative Rating - SPRR

• Ratings Details
  Ð Two years worth of historical data is loaded twice monthly
  Ð Reports are available in 1 month, 3 month, and 12 month views, utilizing a 12 month rolling data source
  Ð Although all deliveries and quality events are listed, only those events with direct, receivable, production and engineering procurements are rated. These are indicated with an “E/L” rating inclusion designation (events with a “blank” ratings inclusion do not affect supplier performance).

• The following reports are available
  Ð Supplier Ratings For All Businesses:
    ▪ Global - All Supplier Locations For All Raytheon Business Units
    ▪ Individual - Single Supplier Location for All Raytheon Business Units
  Ð Supplier Ratings By Business:
    ▪ IDS - Integrated Defense Systems
    ▪ IIS - Intelligence, Information and Services
    ▪ MS - Missile Systems
    ▪ SAS - Space and Airborne Systems
Quantitative Criteria and Weights

• Overall Quantitative Ratings include Quality and Delivery Performance weighted as follows:

<table>
<thead>
<tr>
<th>Major Criteria</th>
<th>Criteria Weight</th>
<th>Sub Criteria</th>
<th>Sub Criteria Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>60%</td>
<td>Source, Incoming and Floor Failures - PPM</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incoming - Lot Acceptance Rate %</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier Corrective Action Request - SCAR</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sub Criteria Total</td>
<td>100%</td>
</tr>
<tr>
<td>Delivery</td>
<td>40%</td>
<td>On-Time Delivery</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sub Criteria Total</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Quantitative Rating</td>
<td>100%</td>
</tr>
</tbody>
</table>

For additional information on the SRS algorithm and the ability to calculate ratings for different scenarios, refer to SRS Rating calculator found on the SPRR landing page.
Quality Rating

• The Quality Rating is based on the weighted average of 3 components:

1. Parts Per Million (PPM) Score
2. Lot Acceptance Rate (LAR)
3. Supplier Corrective Action Requests (SCAR) Impact

Quality Rating  = 50% * (PPM Score) + 35% * (LAR) + (15% − 0.01 * SCAR Impact)
Quality Rating

• The PPM Score

The PPM score is based on three linear equations and the calculated PPM value.

\[
\text{PPM Score} = \begin{cases} 
1 - \frac{3}{668,000} \times \text{PPM} & \text{if } 0 \leq \text{PPM} \leq 66,800 \\
0.783085 - \frac{3}{2,412,000} \times \text{PPM} & \text{if } 66,800 < \text{PPM} \leq 500,000 \\
0 & \text{if } 500,000 < \text{PPM}
\end{cases}
\]

The PPM value is calculated in accordance with the following two equations.

\[
\text{PPM} = \frac{\text{Total Weighted Failures}}{\text{Quality Parts Received}} \times 1,000,000
\]

\[
\text{Total Weighted Failures} = 3 \times (\# \text{ of Source Inspection Failures} \times 0.1 + \# \text{ of Incoming Inspection Failures} \times 0.3 + \# \text{ of Floor Failures} \times 0.6)
\]

Quality parts received is the total number of parts received during the rating period.

Failures are applied to SRS when they are opened.
Quality Rating

• The PPM Score - continued

Where to find this information in the SPRR

\[
\text{PPM Score} = \begin{cases} 
1 - \frac{3}{668,000} \times \text{PPM} & \text{if } 0 \leq \text{PPM} \leq 66,800 \\
0.783085 - \frac{3}{2,412,000} \times \text{PPM} & \text{if } 66,800 < \text{PPM} \leq 500,000 \\
0 & \text{if } 500,000 < \text{PPM}
\end{cases}
\]

The PPM value is calculated in accordance with the following two equations.

\[
\text{PPM} = \frac{\text{Total Weighted Failures}}{\text{Quality Parts Received}} + \frac{1,000,000}{\text{Quality Parts Received}}
\]

\[
\text{Total Weighted Failures} = 3 \times \left( \frac{\text{# of Source Inspection Failures}}{0.1} + \frac{\text{# of Incoming Inspection Failures}}{0.3} + \frac{\text{# of Floor Failures}}{0.6} \right)
\]

Quality parts received is the total number of parts received during the rating period.
Quality Rating

• The Lot Acceptance Rate (LAR)

\[
\text{LAR} = \frac{\text{# of quality lots accepted}}{\text{# of quality lots received}}
\]

Quality lots received are the number of lots that have been inspected in the measurement window. Quality lots accepted are lots that are inspected and were not flagged for any sort of quality issue.

The total number of quality lots received does not always match the number of delivery lots received in a given rating period. The total number of quality lots are the unique number of lots grouped by PO, line item, and receipt ID. There can be multiple delivery lots received per each quality lot received based on scheduled line items.
Quality Rating

• The Lot Acceptance Rate (LAR) - continued

Where to find this information in the SPRR

Quality Rating

LAR = \frac{\text{# of quality lots accepted}}{\text{# of quality lots received}}

Quality lots received are the number of lots that have been inspected in the measurement window. Quality lots accepted are lots that are inspected and were not flagged for any sort of quality issue.

The total number of quality lots received does not always match the number of delivery lots received in a given rating period. The total number of quality lots are the unique number of lots grouped by PO, line item, and receipt ID. There can be multiple delivery lots received per each quality lot received based on scheduled line items.
• The SCAR Impact

\[
\text{SCAR Impact} = \begin{cases} 
\frac{\text{Sum of SCAR Penalties}}{15} & \text{if Sum of SCAR Penalties} \leq 15 \\
15 & \text{if Sum of SCAR Penalties} > 15 
\end{cases}
\]

SCAR penalties are assessed based on the SCAR level as described here:

- Level 1 SCARs: No penalty per SCAR
- Level 2 SCARs: 4.0 penalty per SCAR
- Level 3 SCARs: 15.0 penalty per SCAR

SCAR penalties are reduced in half once supplier response is accepted by Raytheon (RCAS Phases of “Verification”, “Validation”, or “Closed”) as follows:

- Level 1 SCARs: No penalty per SCAR
- Level 2 SCARs: Reduced to 2.0 penalty per SCAR
- Level 3 SCARs: Reduced to 7.5 penalty per SCAR

The SCAR penalty impacts the quality rating only during the period in which the SCAR is issued. For example, a SCAR issued in June would impact the 3 month quality rating for the period from June to August, but it would not impact the September 1 month quality rating.

SCARs open longer than 12 months will continue to impact a suppliers 12 month quality rating up to 24 months or until the SCARs are closed (whichever occurs first)
Quality Rating

• The SCAR Impact - continued

Where to find this information in the SPRR

The “SCAR Detail” report indicates how many SCARs are impacting the rating and what the impact is for each.
Delivery Rating

• The SRS Delivery rating is based on 3 components:

1. Lots Received on Time
2. Lots Due
3. Lots Past Due

\[
\text{Delivery Rating} = \frac{\text{Lots Received on Time}}{\text{Lots Due} + \text{Lots Past Due}}
\]
Delivery Rating

• Lots Received on Time

Lots Received on Time = Number of lots delivered on time according to their statistical delivery date (contractual date) within the measurement window (e.g. 1, 3 and 12 months), including allowed received early deliveries.
Delivery Rating

• Lots Received on Time - continued

Where to find this information in the SPRR

Lots Received on Time = Number of lots delivered on time according to their statistical delivery date (contractual date) within the measurement window (e.g. 1, 3 and 12 months), including allowed received early deliveries.

The “Receipt Detail” report indicates lots delivered on time within the 1, 3 and 12 month measurement windows.
Delivery Rating

• Lots Due

Lots Due = Number of lots with statistical delivery dates (contractual dates) within the measurement window (e.g. 1, 3 and 12 months) that have been delivered (includes allowed received early deliveries), including those that have not yet been delivered.
• Lots Due - continued

Where to find this information in the SPRR

**Lots Due** = Number of lots with statistical delivery dates (contractual dates) within the measurement window (e.g. 1, 3 and 12 months) that have been delivered (includes allowed received early deliveries), including those that have not yet been delivered.

The “Receipt Detail” report indicates lots due that were received, the “PO Details” report indicates lots due not yet received.

“Receipt Detail” report

“PO Details” report
Delivery Rating

• Lots Past Due

Lots Past Due = Number of lots with statistical delivery dates (contractual dates) prior to the measurement window (e.g. 1, 3 and 12 months) that have not yet been delivered.
Lots Past Due = Number of lots with statistical delivery dates (contractual dates) prior to the measurement window (e.g. 1, 3 and 12 months) that have not yet been delivered.

The “PO Details” report indicates lots due that have not yet been received which are prior to the measurement window (Past Due).
Delivery Rating Example

“Receipt Detail” Report

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Status</th>
<th>SPED Code</th>
<th>PO Number</th>
<th>Line Num</th>
<th>Subtotal Amount</th>
<th>Weight</th>
<th>Quality Rating</th>
<th>Delivery Rating</th>
<th>Past Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC123</td>
<td>OK</td>
<td>123</td>
<td>456</td>
<td>789</td>
<td>12345</td>
<td>567</td>
<td>89</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>DEF456</td>
<td>Late</td>
<td>789</td>
<td>321</td>
<td>654</td>
<td>9876</td>
<td>654</td>
<td>34</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>

Algorithm

\[
\text{Delivery Rating} = \frac{\text{Lots Received on Time}}{\text{Lots Due} + \text{Lots Past Due}}
\]

- Lots Received on Time = 61 [from “Receipt Detail” Report]
- Lots Due = 69 [Lots Due on “Receipt Detail” Report is 66 + Lots Due on “PO Detail” Report is 3 = 69]
- Lots Past Due = 2 [from “PO Detail Report”]

3 Month Delivery Rating = 85.9% \([61 \div (69 + 2)]\)
Tips for Determining if Lot is “Received on Time” or “Due” on “Receipt Detail” Report

- Activities listed on the “Receipt Detail Report” are all lots received in the last 12 months
- Only lots with an “E/L” in the “Ratings Inclusion” column are included in determining ratings. “E/L” means “Rec” (receivable item) = Y & “Dir” (direct charge item) = Y. Lots with blank “Ratings Inclusion” are not included in ratings.
- 1’s in the “Lots Rcvd On Time” or “Lots Due” columns indicate what reporting window (1, 3 or 12 months) the lot is considered “Rcvd On Time” or “Due” (0’s are not included in ratings)

To determine if a lot is “Rcvd On Time”, compare the Receipt Date (in this example 05/18/18) to the Statistical Date (in this example 05/29/2018)

- If the Receipt Date is anywhere from 5 days late to 25 days early (business days) of the Statistical Date, it is on time (also considered on time if early deliveries are allowed and delivered earlier than 25 days). Number of days early (-) or late is listed in the “Qty Days” column. Lots on time are indicated by “Y” in the “On Time Ind” column. This example is “Y”.
- In this example, the SPRR Report Date is June 2018. To determine what reporting window the lot is considered due, determine what reporting window the receipt date (in this example 05/18/18) falls into - 1 month (June 2018), 3 month (April 2018 - June 2018) and/or 12 month (July 2017 - June 2018) window – This example is “Rcvd On Time” for 3 and 12 month windows

To determine when a lot is considered “Due”

- In this example, the SPRR Report Date is June 2018. To determine what reporting window the lot is considered due, determine what reporting window the Statistical Date (in this example 05/29/18) falls into - 1 month (June 2018), 3 month (April 2018 - June 2018) or 12 month (July 2017 - June 2018) window – This example is “Due” for 3 and 12 month windows

NOTE: The receipt date for allowed received early deliveries is utilized as the received date and the due date.
Tips for Determining if Lot is “Due” or “Past Due” on “PO Detail” Report

- PO activity listed on the “PO Detail Report” are all lots with Statistical Dates on or before the date of the SPRR Report (PO activity with future Statistical Dates will not be shown).
- Lots with “Open Ind” = Yes (deliveries not yet complete) & “Rec” = Y (receivable item) & “Dir” = Y (direct charge item) will be considered “Due” and/or “Past Due”.
- 1’s in the “Due” or “Past Due” columns indicate what reporting window (1, 3 or 12 months) the lot is considered “Due” or “Past Due” (0’s indicate a lot is neither Due or Past Due and have no impact on ratings).
- Compare the Statistical Date (in this example 05/30/2018) to the SPRR Report Date (in this case June 2018).
  - If the Statistical Date falls into the 1 month window (June 2018) it is considered “Due”, if prior to the 1 month window it is considered “Past Due” – This example is “Past Due” for 1 month window.
  - If the Statistical Date falls into the 3 month window (April 2018 - June 2018) it is considered “Due”, if prior to the 3 month window it is considered “Past Due” – This example is “Due” for 3 month window.
  - If the Statistical Date falls into the 12 month window (July 2017 - June 2018) it is considered “Due”, if prior to the 12 month window (looking back 24 months) it is considered “Past Due” – This example is “Due” for 12 month window.
Qualitative Rating Element Details

Qualitative Data Input (QDI)
Qualitative Ratings

• Suppliers may be qualitatively assessed in 5 Key Rating Criteria:
  ➢ Price/Cost
  ➢ Schedule/Delivery
  ➢ Technical
  ➢ Quality/Mission Assurance
  ➢ Business/Management

• Resulting qualitative ratings may be Unsatisfactory (Red), Marginal (Yellow), Satisfactory (Green), Very Good (Purple), or Exceptional (Blue) for Each Key Rating Criteria as Shown in the Final Report
  ➢ Qualitative scores are not factored into the quantitative SRS rating
  ➢ QDI is used for all suppliers and the applicable rating criteria is selected from a listing of 40 sub-criteria, embedded in the 5 key rating criteria

• The Sub-Criteria within the Key Rating Criteria must total to 100% and all of the Key Rating Criteria must total to 100%

• Qualitative Ratings are assessed through the QDI Tool within SRS
Glossary

• LAR = Lot Acceptance Rate
• OTD = On Time Delivery
• PPM = Parts Per Million
• SCAR = Supplier Corrective Action Request
• SPRR = Supplier Performance Relationship Report
• SRS = Supplier Rating System