



RDECOM



Malcolm Baldrige
**National
Quality
Award**
2007 Award
Recipient



TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.

International Infantry & Joint Service Small Arms Systems
Symposium, Exhibition & Firing Demonstration

Improve Your Industry Proposals by Understanding the JSSAP
Competitive Proposal Evaluation Process and Tools

May 14, 2012 **TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.**

- ❖ **Background**
- ❖ **JSSAP Tech Base Process**
- ❖ **DoD Selection Emphasis**
- ❖ **JSSAP Selection Process Focus- Technical**
- ❖ **Challenge**
- ❖ **JSSAP Technical Down-Select Process**
- ❖ **Technical Down-Select Process Breakout**
- ❖ **JSSAP Technical Down-Select Evaluation Tool**
- ❖ **Technical Evaluation Tool Characteristic**
- ❖ **Technical Evaluation Criteria Example**
- ❖ **Example**
- ❖ **Conclusion**
- ❖ **Backup**

- ❖ **JSSAP (Joint Service Small Arms Program) is established to implement, execute and manage the material solutions approved and concurred by JSSAST (Joint Service Small Arms Synchronization Team) which compiles of Joint Service representatives to harmonize new Service materiel requirements with potential joint applications.**

- ❖ **JSSAP Mission:**
 - ❖ **Promote, coordinate and manage the exchange of information related to small arms systems technology, acquisition and sustainment**
 - ❖ **Maintain continuous liaison with government and civilian entities involved in small arms research, development and commodity management**

- ❖ **Each year, JSSAP will receive and review numerous proposals (10-20) that may provide new capabilities to the Small Arm weapons**

- ❖ **JSSAP must allocate its funding onto technologies that are critical and good value for the mission**

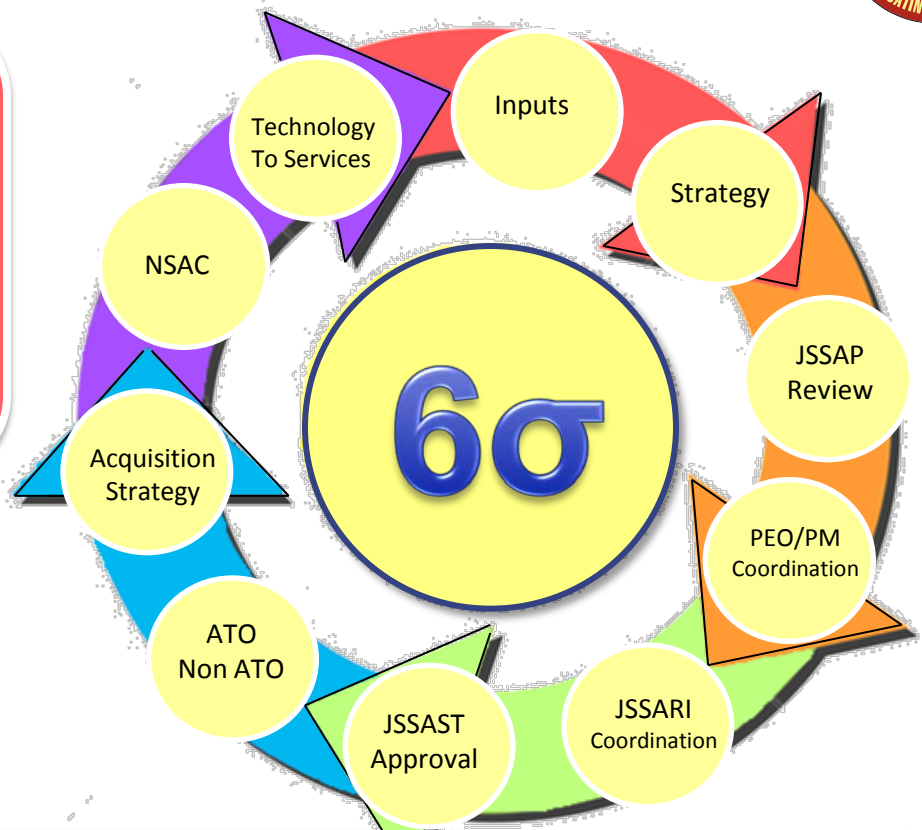
Inputs
 Joint Small Arms Capability Assessment- 2006
 Small Arms Capability Based Assessment – 2009/2010
 Joint Service Small Arms Master Plan
 JSSAP Futures Conferences – 2008, 2009, 2010
 National Small Arms Center – Industry Push
 TRADOC Gaps/Warfighter Outcomes
 PEO Technology Shortfalls
 Documented Requirements ICD/CDD/CPD
 Technology Information Exchanges
 System Integration Domains/Technology Focus Teams

Formulate JSSAP Strategy/Review/Prioritize
 Transition to PM/Field –
 #1 Goal for all JSSAP Programs
 Commonality of Technologies for Affordability
 Collaboration/Leveraging Opportunities
 -OGA, Current Investments, SBIRS, CRADA,
 Technology, Academia, Industry
 Most Promising Investments

JSSAST/PM/PEO/Customer Coordination
 Consolidated Prioritized List
 Synergy with PM Roadmaps and TRADOC Gaps
 Joint Service Small Arms Requirements Integration
 Joint Service Small Arms Synchronization Input

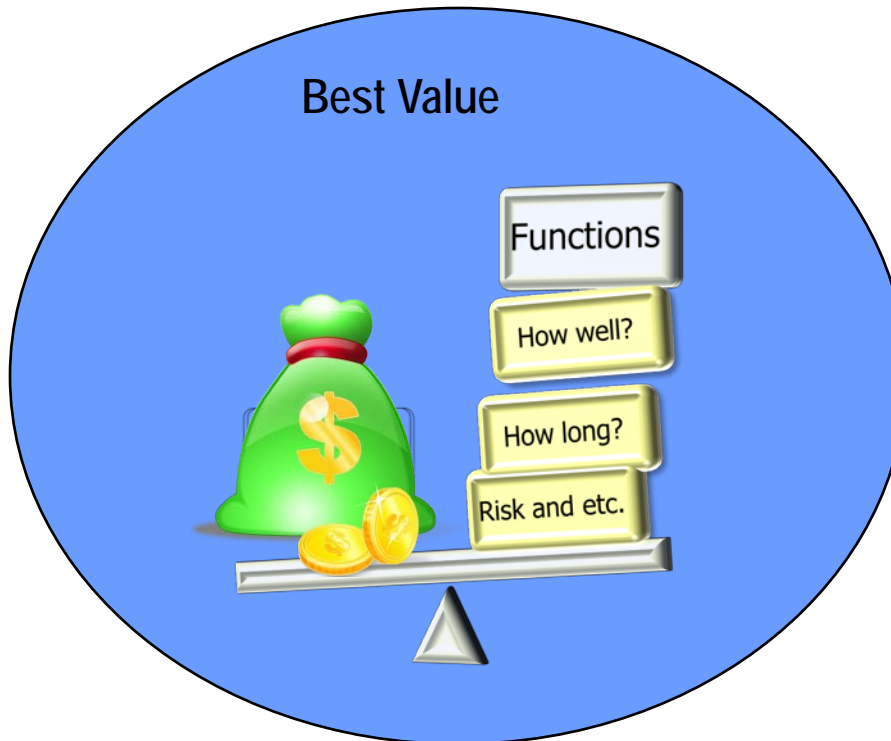
Tech Base Development Strategy
 L6 σ Approved Processes
 – JSSAP Technology Program Build
 – JSSAP Technology Down Select Process
 ATO –R/ATO-D/MTO Approval Process
 Other Tech Base Investments
 In House RDECOM Tech Base Efforts

Outputs
 National Small Arms Center (OTA)
 • RPP Process
 • RBDP Process
 • White Papers



Best Value is the major emphasis for DoD Source Selection

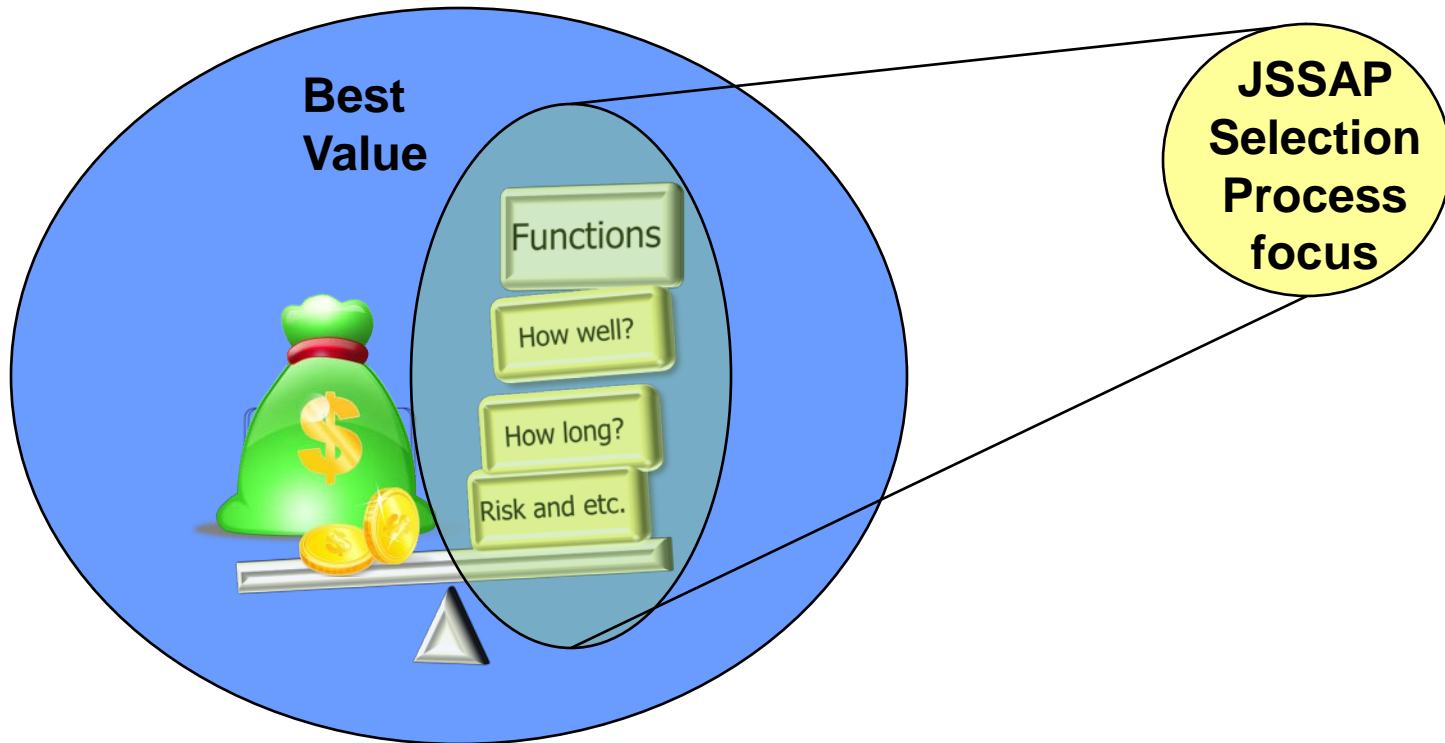
- ❖ *According to Federal Acquisition Regulation (FAR) 15.3, Source Selection is the "...selection of a source or sources in competitive negotiated acquisitions... The objective of source selection is to select the proposal that represents the **best value** [1]."*



JSSAP Selection Process

Focus- Technical

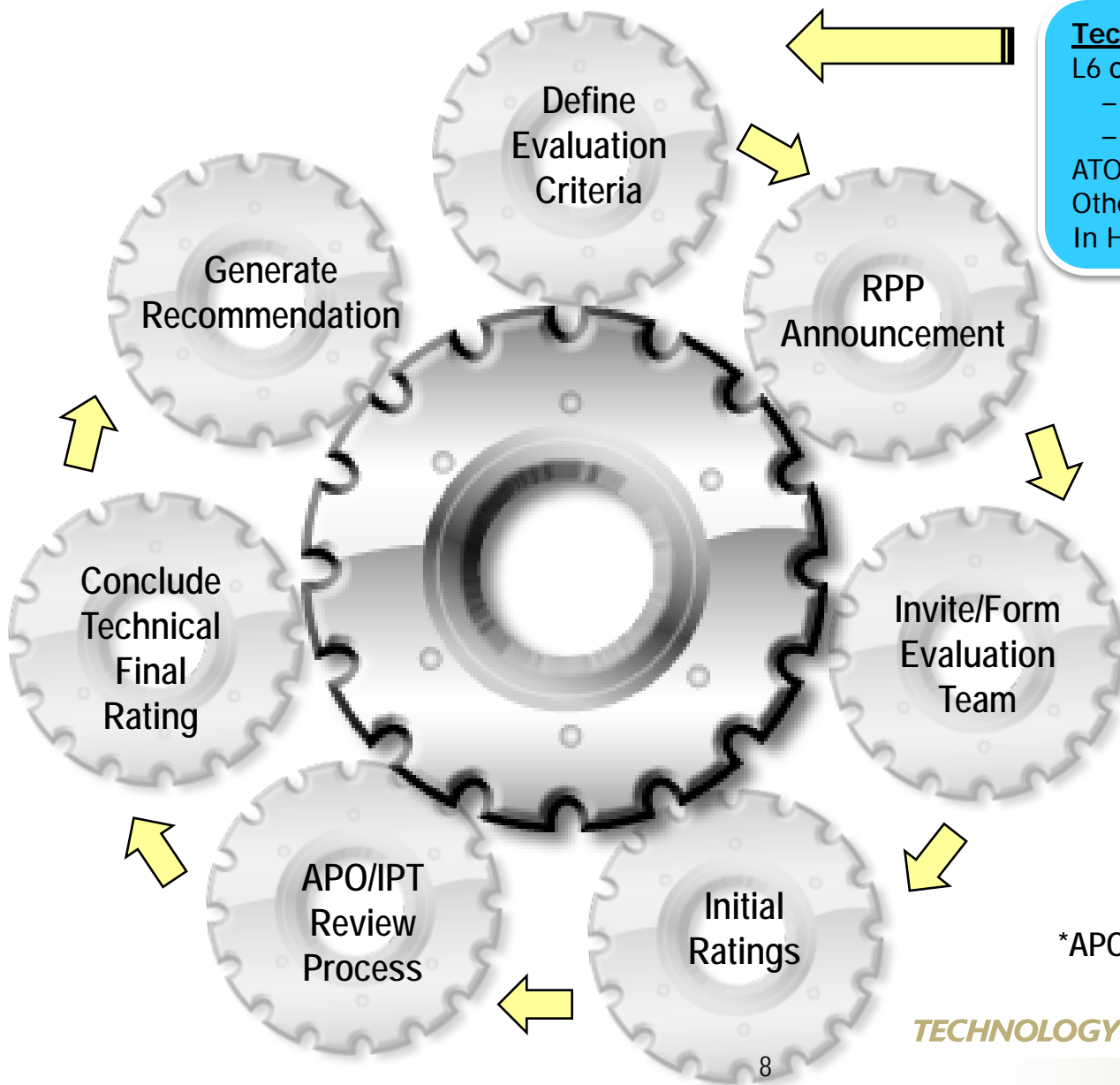
- Basic and applied research project;
- Other Transaction Agreement (OTA)



Technical Evaluation Focused

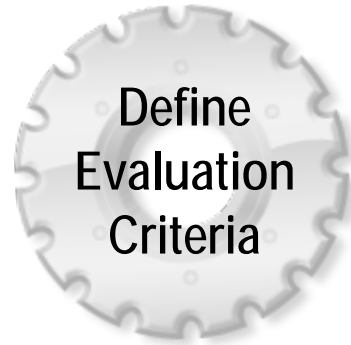
- ❖ The performance based mandate is particularly difficult for research and development initiatives where the type, depth, sophistication, and approach of submissions to inquiries can be quite diverse. As always, funding decisions must be made in a fair, impartial, competitive, and legal way.
- ❖ JSSAP has defined
 - ❖ a robust down-select process and
 - ❖ tools that provide the fidelity and the confidence of the decision making.

JSSAP Down-Select Process



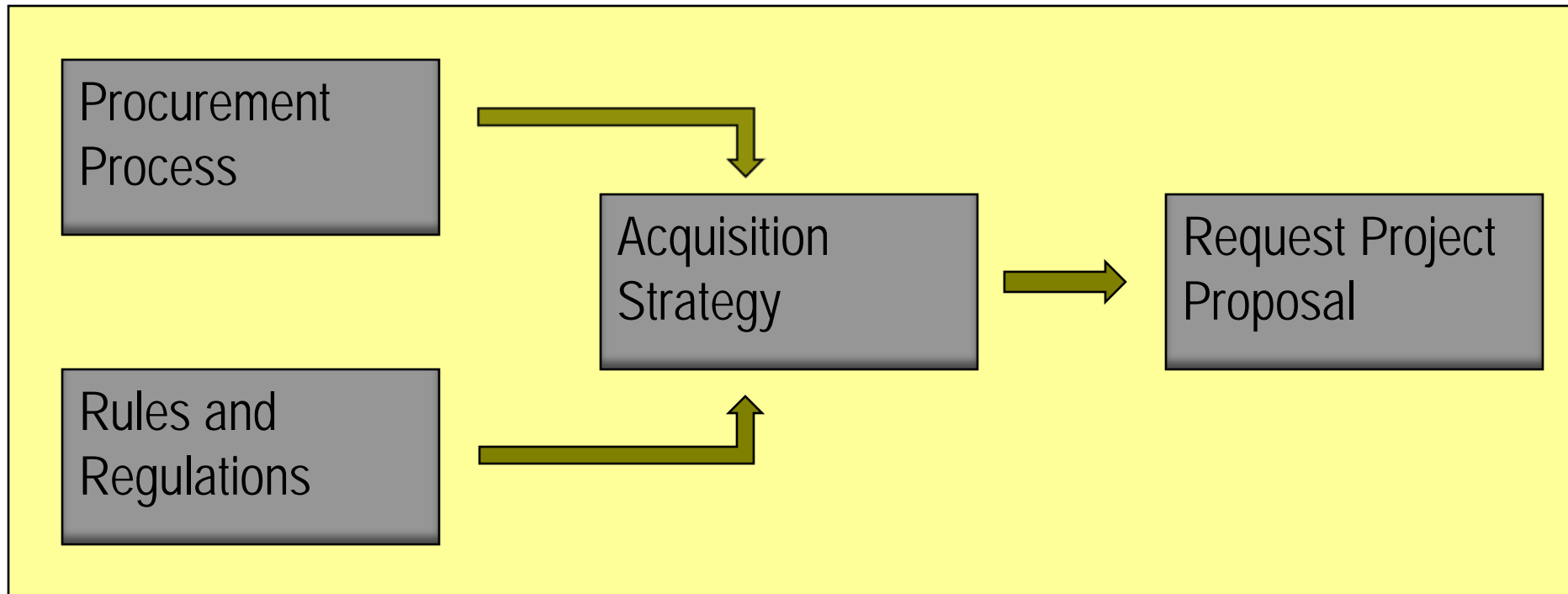
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In House RDECOM Tech Base Efforts

*APO- ARDEC Project Officer



Source of criteria:

- ❖ CBA Study
 - ❖ R&D objectives
 - ❖ Technical criteria
- ❖ Risk tolerance
- ❖ Past Performance and Lessons Learn





- Determine evaluation team support requirement
- Send requests to appropriate agencies for support
- Conduct evaluation team training.

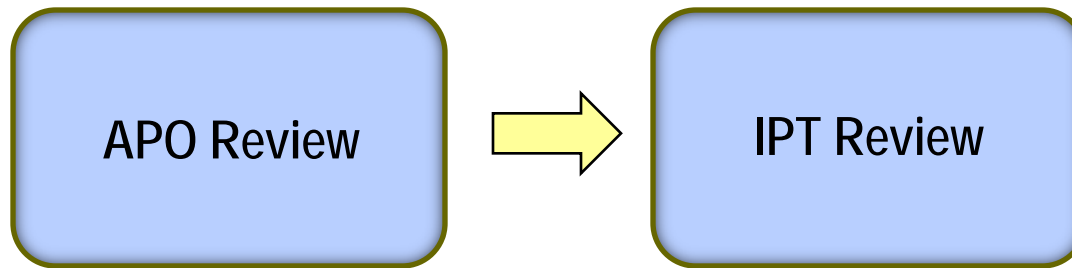
Individual SME Rating

- Provide evaluation template to evaluation team member
- Individual SME assessment on proposals
- Collect assessments



❖ Compile the ratings

| Evaulator XX | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Management | Reliability | Risk | system engineering |
|--------------|----------|----------|----------|----------|------------|-------------|--------|--------------------|
| Proposal 1 | YELLOW | GREEN | YELLOW | YELLOW | YELLOW | YELLOW | RED | RED |
| Proposal 2 | YELLOW | BLUE | RED | YELLOW | GREEN | YELLOW | RED | RED |
| Proposal 3 | GREEN | BLUE | YELLOW | GREEN | GREEN | GREEN | RED | RED |
| Proposal 4 | GREEN | GREEN | RED | RED | RED | RED | orange | RED |
| Proposal 5 | BLUE | YELLOW | RED | YELLOW | YELLOW | YELLOW | RED | YELLOW |
| Proposal 6 | BLUE | BLUE | GREEN | GREEN | BLUE | GREEN | RED | YELLOW |
| Proposal 7 | GREEN | BLUE | GREEN | GREEN | GREEN | GREEN | RED | GREEN |
| Proposal 8 | BLUE | BLUE | BLUE | GREEN | GREEN | YELLOW | RED | GREEN |
| Proposal 9 | BLUE | GREEN | BLUE | YELLOW | GREEN | GREEN | RED | GREEN |
| Proposal 10 | GREEN | YELLOW | RED | RED | RED | orange | orange | YELLOW |



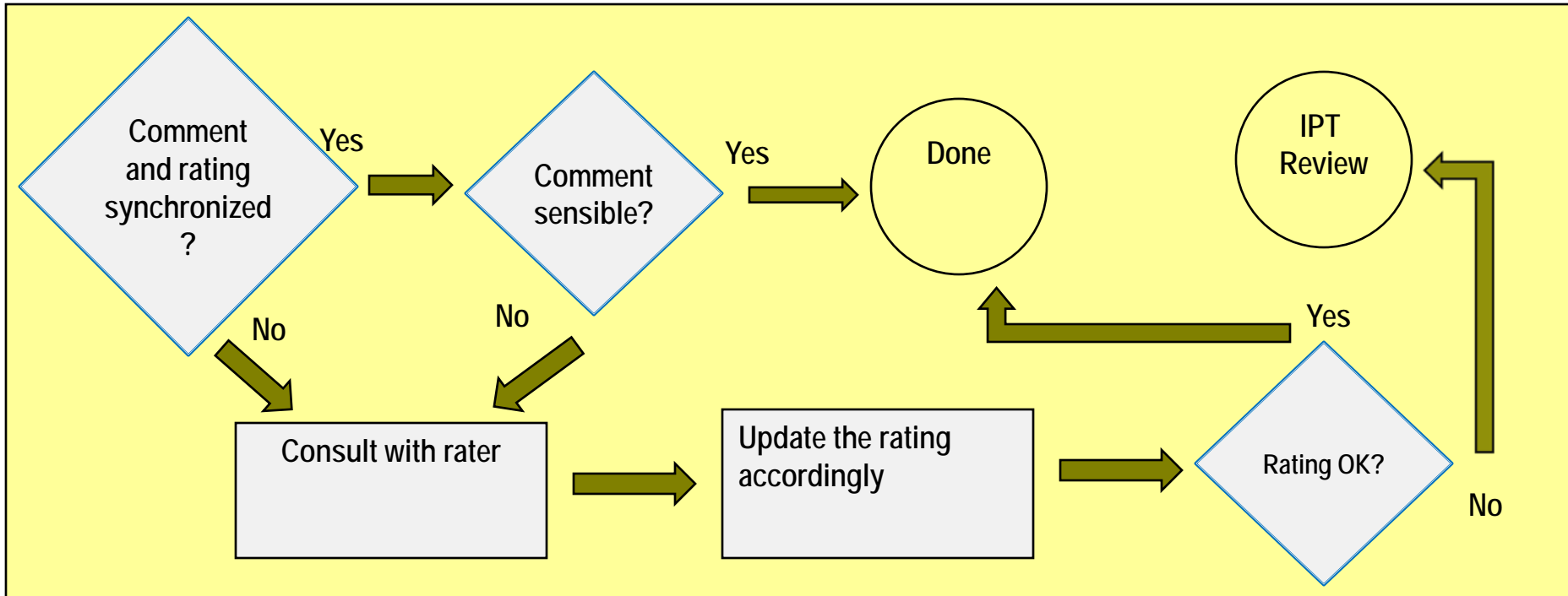
❖ Check for any anomaly in the assessment result (two bands swing)

*APO- ARDEC Project Officer



APO Review

*APO- ARDEC Project Officer



IPT Review

- Schedule team review meeting
- Present and discuss the discrepancy
- Obtain team decision



Tabulate the IPT result

| | Technical | | | | | | | |
|----------|-----------|--------|--------|--------|--------------------|-------------|--------|------------|
| Proposal | KPP1 | KPP2 | KPP3 | KPP4 | System Engineering | Reliability | Risk | Management |
| 2008 #1 | Green | Green | Blue | Yellow | Yellow | Blue | Green | Green |
| 2008 #2 | Green | Yellow | Green | Orange | Red | Green | Green | Green |
| 2008 #3 | Blue | Orange | Yellow | Yellow | Yellow | Blue | Green | Green |
| 2008 #4 | Yellow | Orange | Yellow | Green | Orange | Red | Green | Yellow |
| 2008 #5 | Blue | Yellow | Yellow | Orange | Green | Red | Green | Yellow |
| 2008 #6 | Orange | Blue | Green | Blue | Red | Green | Green | Yellow |
| 2008 #7 | Green | Orange | Blue | Orange | Red | Yellow | Yellow | Green |
| 2008 #8 | Red | Green | Orange | Yellow | Green | Yellow | Orange | Green |
| 2008 #9 | Yellow | Blue | Yellow | Orange | Orange | Blue | Yellow | Green |
| 2008 #10 | Green | Red | Yellow | Green | Yellow | Orange | Yellow | Yellow |

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- ❖ Consolidate all proposal ratings
- ❖ Generate the recommendation report

Technical
Recommendation



JSSAST Decision

Effective selection tool for technical evaluation must:

- ❖ Better defined evaluation criteria- single question per criteria
- ❖ Higher evaluation resolution- 5 color band rating system
- ❖ Use statistical method to prioritize the proposals

| |
|-------------------|
| Cause for Concern |
| Insufficient |
| Average |
| Strong |
| Excellent |

Evaluators provide assessment ratings for each criteria and provide comments for the ratings

Blank Evaluation 2 - Microsoft Excel

| 1 | A | B | C | D | E | F | G | H | I |
|----|---|--------------|--------------|--|----------------------|---|----------------------|--|----------------------|
| 2 | | Evaluator | Gerard Gaeta | | | | | | |
| 3 | | | | Question 1 | Q1 Evaluator Comment | Question 2 | Q2 Evaluator Comment | Question 3 | Q3 Evaluator Comment |
| 4 | | Proposal | Evaluate? | Does the proposal address the minimum number of pixels of target needed for tracking | | Does the proposal address the percent false target detection from 0 - 6000? | | Does the proposal address the time to acquire a target (tracking latency)? | |
| 5 | | (1) GGG | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 6 | | (2) HHH | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 7 | | (3) LLL | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 8 | | (4) PPP | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 9 | | (5) MMM | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 10 | | (6) not used | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 11 | | (7) not used | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |
| 12 | | (8) not used | Yes | Does Not Apply | | Does Not Apply | | Does Not Apply | |

- ❖ Adjustable evaluation criteria
- ❖ Precise grading control
- ❖ Higher fidelity in grading (5 grade bands)
- ❖ Threshold control
- ❖ Build-in flag check (grades from SMEs cannot swing more than two bands)

- ❖ Relevance
 - ❖ R&D objectives/metrics
- ❖ Payoff Potential
 - ❖ Usage- frequency (scenario limited)
 - ❖ Specificity- weapon platform
 - ❖ Impact- performance effect
- ❖ Proposal Sophistication
 - ❖ Detail
 - ❖ Risk Aversion Approach and Experience
- ❖ Difficulty Assessment
 - ❖ Current Technical Maturity
 - ❖ Overall Complexity
 - ❖ Novelty
- ❖ Transition Potential
- ❖ System Engineering
- ❖ Reliability
- ❖ Environmental
- ❖ Information Security

❖ Individual evaluator rating

| Evaluator | | Evaluator 01 | | | |
|------------------|------------|--|--|--|---|
| Proposal | Evaluate? | Question 1 | Q1 Evaluator Comment | Question 2 | Q2 Evaluator Comment |
| | | Does the proposal address the Metric 1 | | Does the proposal address the Metrics 2? | |
| (Proposal M) Yes | Yes | Cause for Concern | No mention of pixels required for tracking. | Cause for Concern | Does not mention any false detection analysis. |
| (Proposal N) Yes | Yes | Adequately address | Proposal states optics will be sufficiently sized to provide target information onto the FPA, but not estimate of minimum number of pixels is given. | Adequately address | False detection rate of less than 20% for AFC ATO project for 50 to 100ft. Proposals states that prototype design will utilize FPA optics to extend range to 600m. Expect |
| (Proposal O) Yes | Yes | Cause for Concern | Not addressed | Cause for Concern | Not addressed |
| (Proposal Q) Yes | Yes | Adequately address | Proposal states that this will be determined in Phase I of the proposal. However, no estimate is given for this question. This shows that he target | Adequately address | Value of 80% positive identifications appears to come straight out of the metrics (missed moving targets). No apparent analysis was done on this |
| (Proposal R) Yes | Yes | Fully addressed and full detail | Thorough analysis provided | Fully addressed and full detail | Thorough analysis given. False target detection well below 20%, as needed to achieve less than 20% missed moving targets |



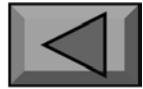
❖ The evaluator's rating transitioned to color code from the evaluation sheet

| Evaluator 1 | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|------|-------|
| Proposal M | RED | RED | RED | YELLOW | RED | RED | RED | RED | RED | orange | RED | RED | RED | RED | RED | RED | RED |
| Proposal N | YELLOW | YELLOW | GREEN | GREEN | BLUE | BLUE | BLUE | BLUE | BLUE | GREEN | GREEN | BLUE | BLUE | RED | GREEN | BLUE | GREEN |
| Proposal O | RED | RED | RED | orange | RED | RED | RED | RED | RED | RED | RED | RED | RED | RED | RED | RED | RED |
| Proposal Q | YELLOW | GREEN | BLUE | GREEN | BLUE | GREEN | GREEN | YELLOW | GREEN | YELLOW | GREEN | GREEN | BLUE | BLUE | GREEN | BLUE | BLUE |
| Proposal R | BLUE | BLUE | GREEN | BLUE | BLUE | BLUE | GREEN | YELLOW | YELLOW | BLUE | GREEN | BLUE | BLUE | GREEN | BLUE | BLUE | BLUE |
| Proposal N | BLUE | BLUE | BLUE | GREEN | YELLOW | BLUE | BLUE | BLUE | GREEN | YELLOW | BLUE | BLUE | GREEN | GREEN | BLUE | BLUE | BLUE |
| Proposal O | RED | RED | RED | RED | RED | orange | RED | RED | RED | RED | YELLOW | RED | RED | RED | RED | RED | RED |
| Proposal Q | YELLOW | GREEN | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | YELLOW | RED | BLUE | RED | RED | BLUE | GREEN | BLUE | BLUE |
| Proposal R | GREEN | GREEN | YELLOW | BLUE | BLUE | BLUE | YELLOW | BLUE | YELLOW | BLUE | BLUE | BLUE | GREEN | GREEN | BLUE | BLUE | BLUE |
| Proposal N | YELLOW | RED | YELLOW | RED | RED | GREEN | GREEN | BLUE | BLUE | RED | BLUE | GREEN | RED | RED | RED | BLUE | BLUE |
| Proposal O | RED | RED | RED | RED | RED | RED | RED | orange | RED | RED | RED | RED | RED | RED | RED | RED | RED |
| Proposal Q | YELLOW | YELLOW | GREEN | GREEN | BLUE | BLUE | BLUE | RED | GREEN | RED | RED | RED | YELLOW | RED | RED | BLUE | BLUE |
| Proposal R | BLUE | BLUE | BLUE | GREEN | GREEN | BLUE | BLUE | RED | orange | BLUE | YELLOW | BLUE | BLUE | YELLOW | YELLOW | BLUE | BLUE |



N Evaluators

- Evaluator ratings compiled for each proposal

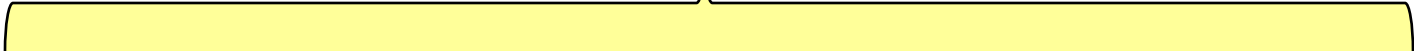


| | | | | | | | | | | | | |
|------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Proposal Q | 1 | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | RED | YELLOW | YELLOW | orange |
| | 2 | GREEN | GREEN | YELLOW | orange | orange | orange | YELLOW | RED | orange | YELLOW | YELLOW |
| | 3 | BLUE | BLUE | GREEN | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW |
| | 4 | GREEN | BLUE | GREEN | YELLOW | YELLOW | YELLOW | YELLOW | orange | YELLOW | GREEN | GREEN |
| | 5 | BLUE | BLUE | BLUE | GREEN | YELLOW | GREEN | YELLOW | orange | GREEN | GREEN | GREEN |
| | 6 | GREEN | BLUE | BLUE | GREEN | GREEN | GREEN | YELLOW | orange | GREEN | YELLOW | YELLOW |
| | 7 | GREEN | BLUE | BLUE | GREEN | GREEN | GREEN | RED | orange | GREEN | GREEN | GREEN |
| | 8 | YELLOW | BLUE | RED | GREEN | GREEN | GREEN | RED | orange | GREEN | YELLOW | YELLOW |
| | 9 | GREEN | YELLOW | GREEN | YELLOW | YELLOW | YELLOW | RED | RED | YELLOW | RED | RED |
| | 10 | YELLOW | RED | RED | RED | RED | RED | RED | RED | RED | RED | RED |
| | 11 | GREEN | BLUE | RED | YELLOW | YELLOW | GREEN | orange | RED | YELLOW | YELLOW | YELLOW |
| | 12 | GREEN | RED | RED | YELLOW | YELLOW | YELLOW | RED | orange | YELLOW | YELLOW | YELLOW |
| | 13 | BLUE | RED | YELLOW | YELLOW | GREEN | YELLOW | YELLOW | RED | YELLOW | GREEN | GREEN |
| | 14 | BLUE | BLUE | RED | YELLOW | YELLOW | YELLOW | YELLOW | RED | YELLOW | GREEN | GREEN |
| | 15 | GREEN | GREEN | RED | YELLOW | YELLOW | YELLOW | GREEN | RED | YELLOW | YELLOW | YELLOW |
| | 16 | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE |
| | 17 | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | GREEN | BLUE | BLUE | BLUE | GREEN |

When there is more than two band swing in the ratings, APO/IPT review will be initiated

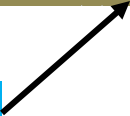
Example

Scores roll up to team rating



| | | | | | | | | | | | | |
|------------|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Proposal Q | 1 | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | RED | YELLOW | YELLOW | orange | YELLOW |
| | 2 | GREEN | GREEN | YELLOW | orange | orange | orange | YELLOW | RED | orange | YELLOW | YELLOW |
| | 3 | BLUE | BLUE | GREEN | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW |
| | 4 | GREEN | BLUE | GREEN | YELLOW | YELLOW | YELLOW | YELLOW | orange | YELLOW | GREEN | GREEN |
| | 5 | BLUE | BLUE | BLUE | GREEN | YELLOW | GREEN | YELLOW | orange | GREEN | GREEN | GREEN |
| | 6 | GREEN | BLUE | BLUE | GREEN | GREEN | GREEN | YELLOW | orange | GREEN | YELLOW | GREEN |
| | 7 | GREEN | BLUE | BLUE | GREEN | GREEN | GREEN | RED | orange | GREEN | GREEN | GREEN |
| | 8 | YELLOW | BLUE | RED | GREEN | GREEN | GREEN | RED | orange | GREEN | YELLOW | YELLOW |
| | 9 | GREEN | YELLOW | GREEN | YELLOW | YELLOW | YELLOW | RED | RED | YELLOW | RED | YELLOW |
| | 10 | YELLOW | RED | RED | RED | RED | RED | RED | RED | RED | RED | RED |
| | 11 | GREEN | BLUE | RED | YELLOW | YELLOW | GREEN | orange | RED | YELLOW | YELLOW | YELLOW |
| | 12 | GREEN | RED | RED | YELLOW | YELLOW | YELLOW | RED | orange | YELLOW | YELLOW | YELLOW |
| | 13 | BLUE | RED | YELLOW | YELLOW | GREEN | YELLOW | YELLOW | RED | YELLOW | GREEN | YELLOW |
| | 14 | BLUE | BLUE | RED | YELLOW | YELLOW | YELLOW | YELLOW | RED | YELLOW | GREEN | YELLOW |
| | 15 | GREEN | GREEN | RED | YELLOW | YELLOW | YELLOW | GREEN | RED | YELLOW | YELLOW | YELLOW |
| | 16 | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE |
| | 17 | BLUE | BLUE | BLUE | BLUE | BLUE | BLUE | GREEN | BLUE | BLUE | GREEN | BLUE |

Team rating





❖ Consolidated team rating

| | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 |
|------------|--------|--------|--------|-------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|------|-------|
| Proposal M | RED | orange | RED | RED | RED | YELLOW | RED | RED | orange | RED | RED | RED | RED | YELLOW | RED | RED | RED |
| Proposal N | YELLOW | YELLOW | GREEN | RED | YELLOW | GREEN | GREEN | GREEN | GREEN | orange | YELLOW | GREEN | YELLOW | YELLOW | GREEN | BLUE | GREEN |
| Proposal O | RED | RED | RED | RED | RED | YELLOW | RED | RED | RED | orange | orange | RED | RED | RED | RED | RED | RED |
| Proposal Q | YELLOW | YELLOW | YELLOW | GREEN | GREEN | GREEN | GREEN | YELLOW | YELLOW | RED | YELLOW | YELLOW | YELLOW | YELLOW | YELLOW | BLUE | BLUE |
| Proposal R | BLUE | BLUE | GREEN | GREEN | GREEN | BLUE | GREEN | BLUE | YELLOW | BLUE | BLUE | GREEN | BLUE | GREEN | GREEN | BLUE | BLUE |

Recommendation is based on the consolidated rating and final analysis

The JSSAP Down Select Process is a well-rounded application:

- It is subjective
- It is flexible and tailorable
- It is comprehensive

Back up Slides

These procedures (FAR Part 15) **are not** required for the following acquisitions:

- Competitions where the only evaluated factor is price
- **Basic research and acquisitions where Broad Agency Announcements (BAA) are used in accordance with FAR Part 35 to solicit proposals and award contracts,**
- Small Business Innovative Research (SBIR), Small Business Technology Transfer Research (STTR) and Small Business Technology Transfer (SBTT) acquisitions solicited and awarded in accordance with 15 United States Code (U.S.C.), Section 638.
- Architect-engineer services solicited and awarded in accordance with FAR Part 36,
- FAR Part 12 Streamlined Acquisitions,
- Acquisitions using simplified acquisition procedures in accordance with FAR Part 13 (including Part 12 acquisitions using Part 13 procedures),
- Orders under multiple award contracts – Fair Opportunity (FAR 16.505 (b)(1)), and
- Acquisitions using FAR subpart 8.4.