



# **Joint Service Weapon Safety Review Process to Support SOCOM**

**Sponsored by  
Defense Safety Oversight Council  
Acquisition and Technology Programs Task Force  
(DSOC ATP TF)**



# Purpose

- Inform SOCOM stakeholders on the implementation of a Joint Service weapon system and laser safety review process, as requested by OSD/SOCOM.



# Background

- SOCOM develops, acquires and fields weapon systems/ordnance/lasers for use by all Service components.
- The Services have requirements for, and utilize independent safety review/approval processes.
- SOCOM has historically been required to navigate multiple Service safety review processes.

# Existing Service's Weapon Safety Review Boards and Processes



- Material Release Process
- Army Fuze Safety Review Board
- Ignition System Safety Review Board
- Center for Health Promotion & Preventive Medicine (Lasers)



- Weapon System Explosives Safety Review Board
  - Systems Software Safety Technical Review Panel
  - Fuze and Initiation System Technical Review Panel
  - Lithium Battery Safety Review Process
- Laser Safety Review Board (BUMED)



- Non-nuclear Munitions Safety Board
- Laser Safety Review Board

***Issue: How does SOCOM get a single, consolidated response?***

# Assigned Action



✓ **“USSOCOM has requested the ATP TF to charter an Integrated Product Team (IPT) to develop a DoD roadmap for a joint system safety release/certification process. Such a process would accelerate the fielding of equipment and systems, without sacrificing the safety of the warfighter.”**

✓ **Service Board chairs accepted the task to develop a collaborative weapon system, ordnance, & laser product safety review process.**



UNITED STATES SPECIAL OPERATIONS COMMAND  
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MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Secretary of Defense Safety Oversight Council Meeting

1. On July 3, 2003, the Secretary of Defense established the Defense Safety Oversight Council (DSOC) and tasked them with the goal of reducing Department of Defense (DoD) mishap and accident rates by 50% in two years. He chartered nine task forces, one of which is the Acquisition and Technology Programs (ATP) Task Force (TF), to accomplish this goal. The purpose of the ATP TF is to investigate, and make recommendations as necessary, that ensure acquisition programs address safety over their entire life cycle, i.e., acquisition, production and fielding.
2. The United States Special Operations Command (USSOCOM), which conducts joint system acquisitions, has asked the ATP TF to review the current practice of requesting multiple system safety certifications from multiple system safety organizations for the same system. USSOCOM has observed that this practice increases the cost and time to field a system. Consequently, USSOCOM has requested the ATP TF to charter an Integrated Product Team (IPT) to develop a DoD roadmap for a joint system safety release/certification process. Such a process would accelerate the fielding of equipment and systems, without sacrificing the safety of the warfighter.
3. We are jointly holding a forum to discuss the issue and identify a way ahead for resolution. The forum will be held July 21, 2005, at the Pentagon in Room 2C554(#2) from 1200-1700. Because of your responsibility relative to a Defense Safety Board, we request your participation in this forum.
4. Please direct your RSVP and questions concerning the forum to Dr. Elizabeth Rodriguez-Johnson. She can be reached at (703) 697-4812, (DSN 227) or [elizabeth.rodriguez-johnson@osd.mil](mailto:elizabeth.rodriguez-johnson@osd.mil). Questions relative to the USSOCOM concerns can be directed to LTC George F. Durden (813) 828-9466 (DSN 299) or [durdeng@socom.mil](mailto:durdeng@socom.mil).
5. We look forward to working with you on this important issue.

D. G. Uhler  
USSOCOM Acquisition Executive

Mr. Mark Schaeffer  
Chair, DSOC ATP TF



# Approach

The Service Safety Boards with SOCOM representatives:

- developed a collaborative Service review process,
- requested candidates from SOCOM to validate the process,
- planning for full implementation.



# Collaborative Team Participants

- SOCOM
  - Safety Office
  - OT&E
  - SOCOM PEO/PM representatives
  - Navy PMS-NSW Program office
- Army Fuze Safety Review Board
- Army Initiation System Review Board
- Air Force Non-nuclear Munition Safety Review Board
- DON Weapon System Explosive Safety Review Board
- Air Force Laser Safety Review Board
- Navy Laser Safety Review Board
- Army CHP&PM (Laser)
- DoD Laser System Safety Working Group



# The Process

- **Consists of seven main elements:**
  1. Collaborative planning & consolidating of requirements
  2. Adjudicating requirements (if necessary)
  3. Execute testing and analysis for system/product
  4. Collaborative reviews of testing and analysis results
  5. Adjudicating results (if necessary)
  6. Residual risks identified and documented (if necessary)
  7. Acquisition community accepts residual risk(s), per DoDI 5000.2 (if necessary)



# Assumptions

The collaborative Joint safety reviews are for:

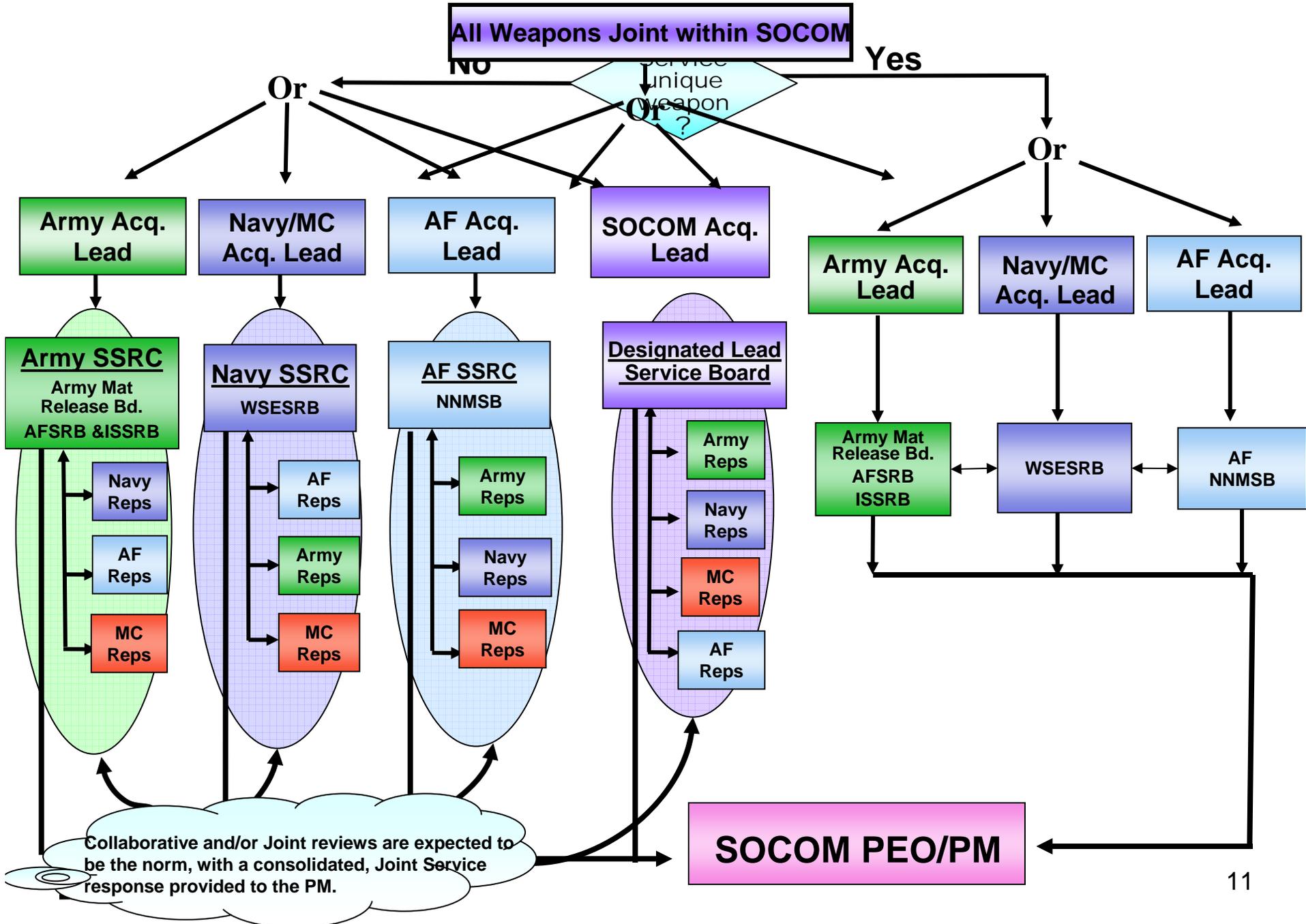
- All SOCOM weapons, weapon systems, ordnance products, conventional explosives devices/products, and ...
- All lasers, laser range finders, laser designators, coherent light sources
- Classified reviews (e.g. SPM) not currently a part of this collaborative review process

# Actions to Date

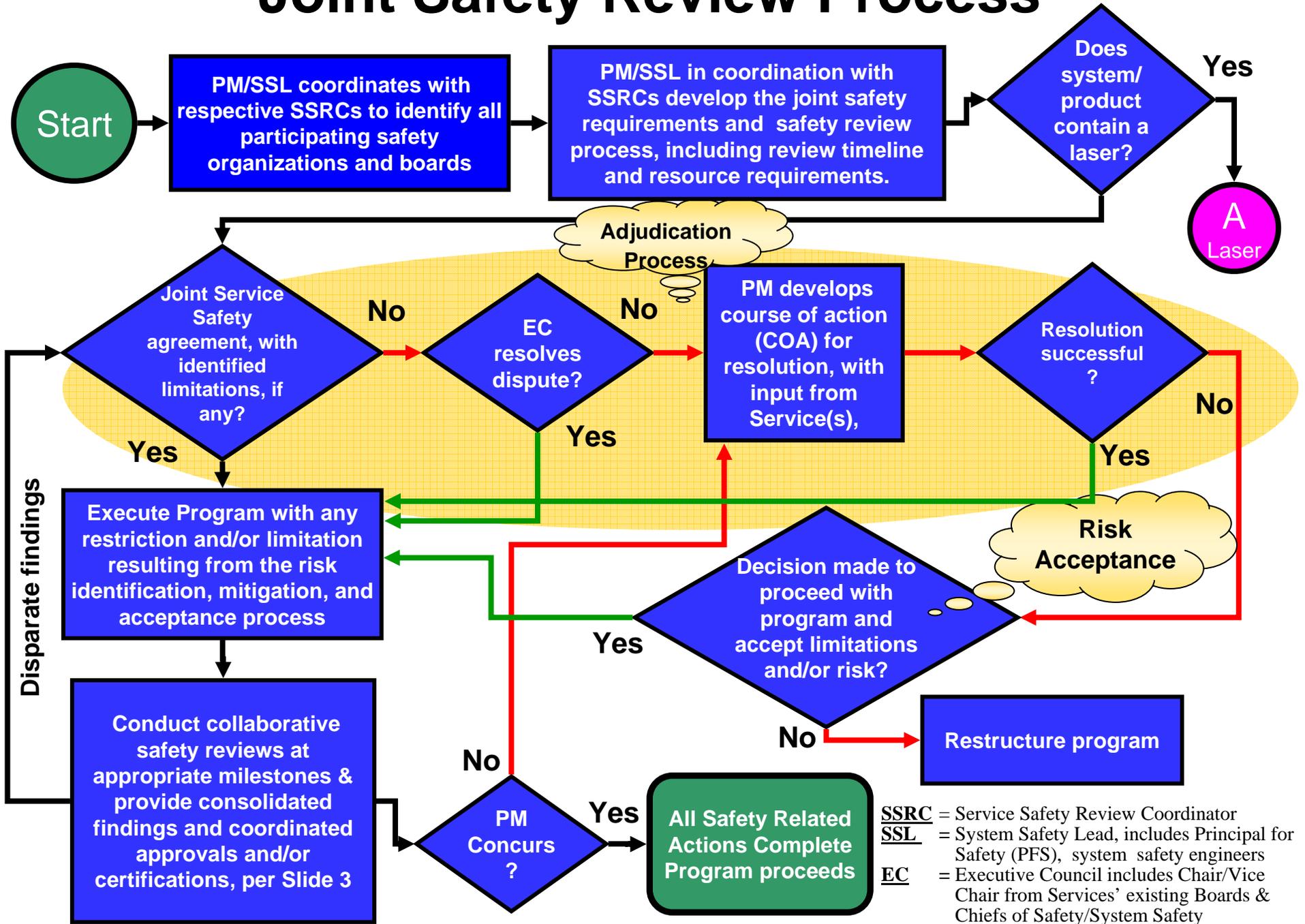


- Proposed a solution to the DSOC Acquisition & Technology Programs TF on 21 July 2005 for collaborative Joint Service weapon safety reviews to support SOCOM
- Joint Weapon Safety Working Group met on 4–5 Aug, 27–29 Sep, 7-8 Dec 2005, and 8-9 Jun 2006
  - Developed/refined initial set of Joint CONOPS (referred to as OSD Guide) and process flowcharts
- November 2005 Initiated process validation with SOCOM approved weapons
  - Joint Combat Pistol (JCP)
  - MAAWS Anti-Structure Munition (ASM) 509
  - Laser - The Enhanced Grenade Launcher Fire Control Unit

# Collaborative, Joint Weapon Safety Review Process to Support SOCOM

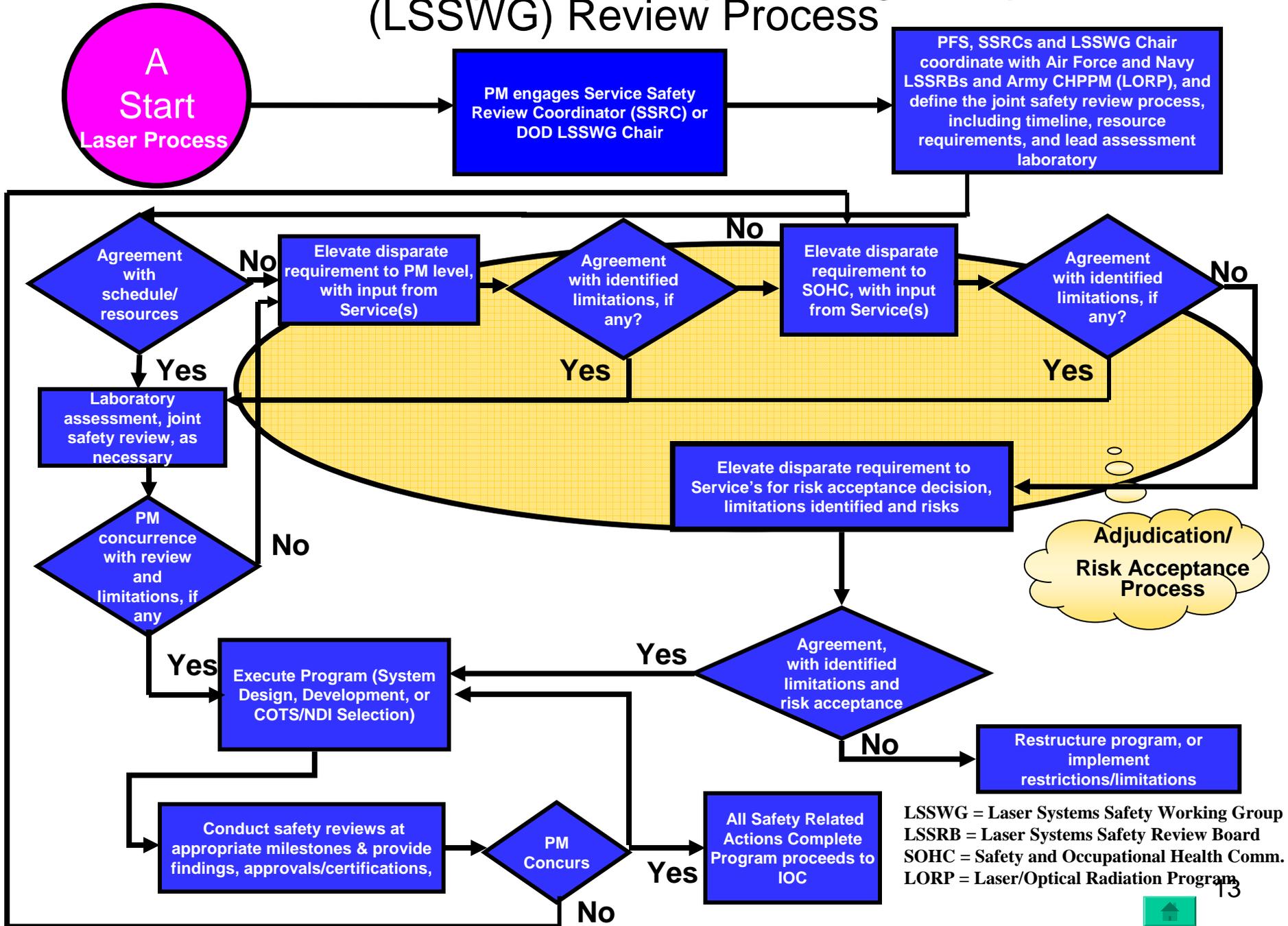


# Joint Safety Review Process



SSRC = Service Safety Review Coordinator  
SSL = System Safety Lead, includes Principal for Safety (PFS), system safety engineers  
EC = Executive Council includes Chair/Vice Chair from Services' existing Boards & Chiefs of Safety/System Safety

# Joint Laser System Safety Working Group (LSSWG) Review Process



LSSWG = Laser Systems Safety Working Group  
 LSSRB = Laser Systems Safety Review Board  
 SOHC = Safety and Occupational Health Comm.  
 LORP = Laser/Optical Radiation Program





# Process Validation

- **Process validation continuing:**
  - One weapon, one munition, and one laser designator being used
    - SOCOM Combat Pistol (CP) (on indefinite hold)
      - Navy lead for acquisition
    - MAAWS Anti-Structural Munition (ASM) 509 (on-going)
      - Army lead for acquisition
    - Enhanced Grenade Launcher Module (EGLM) Laser Fire Control Unit (FCU) (on-going)
      - Navy lead for acquisition
      - Due to user identified issues, a new FCU will be developed.
      - Two prototype sights evaluated during EUA III in Jun 06. Neither acceptable, new laser in development.
      - Joint laser safety review would be requested prior to any additional EUAs of a new laser, and prior to conduct of OT.

# Next Steps



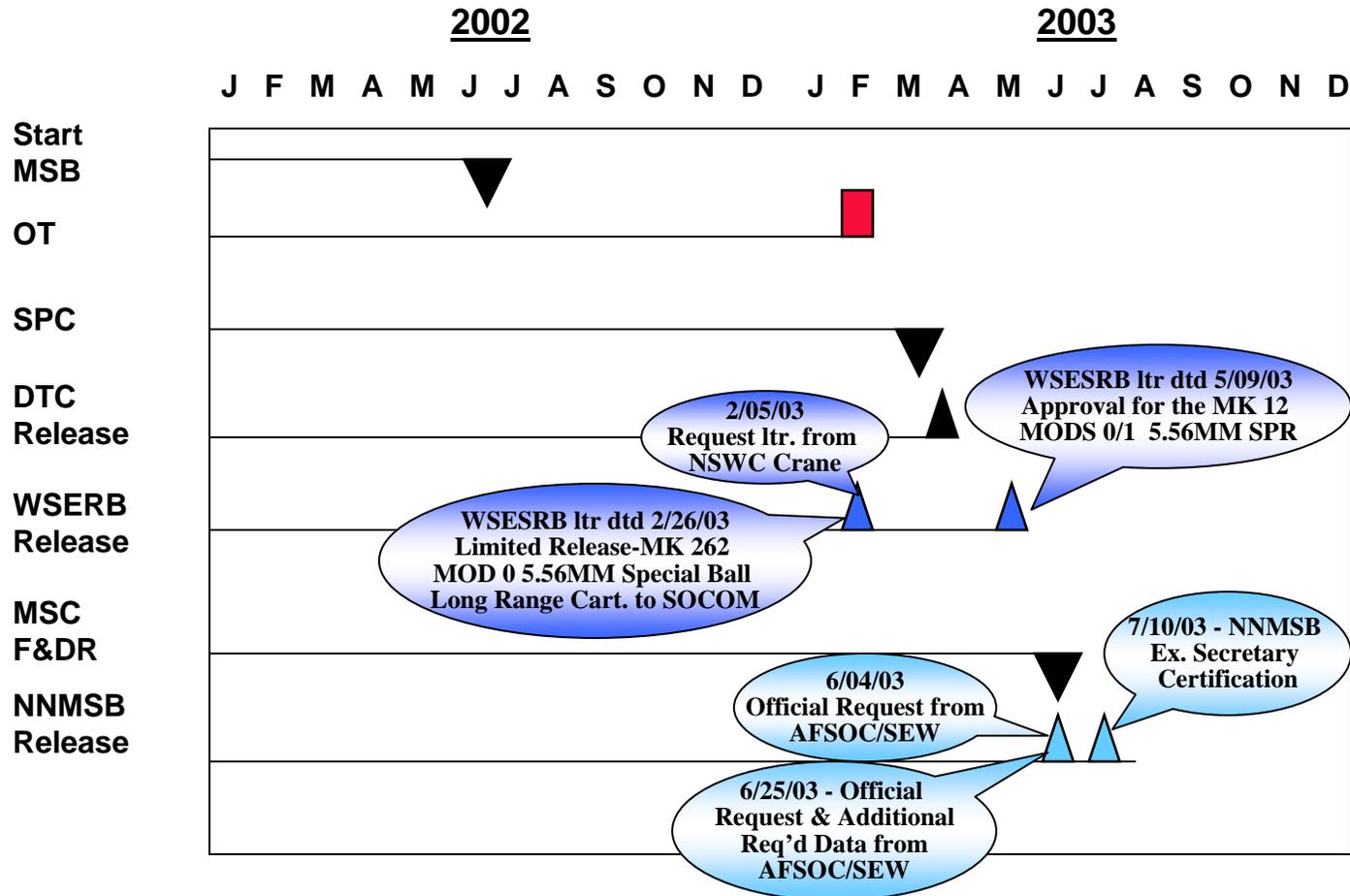
- ✓ **Complete OSD Guide to formalize the CONOPS**
  - Will be developing detailed working level agreements (SOPs) that will lead to a smooth collaborative process
- ✓ **Develop an MOU between SOCOM and the Services agreeing to implement the process identified in the OSD Guide (Propose that Guide be an attachment to, or referenced in, the MOU)**
- ✓ **In the interim, the Service Boards will operate in the proposed collaborative manner in support of SOCOM**



# Backup Slides

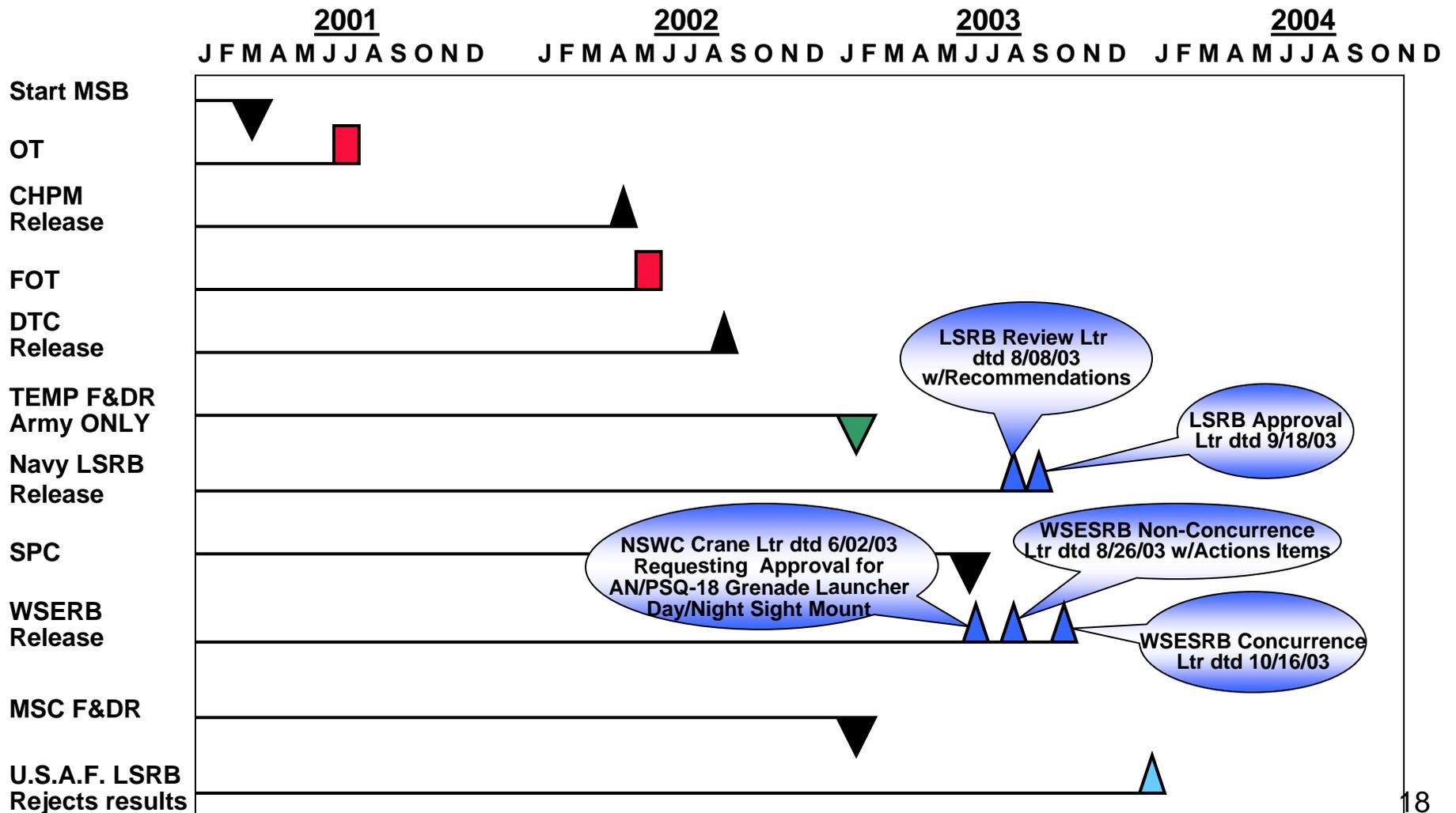
# Safety Certification/Release Process Time Line

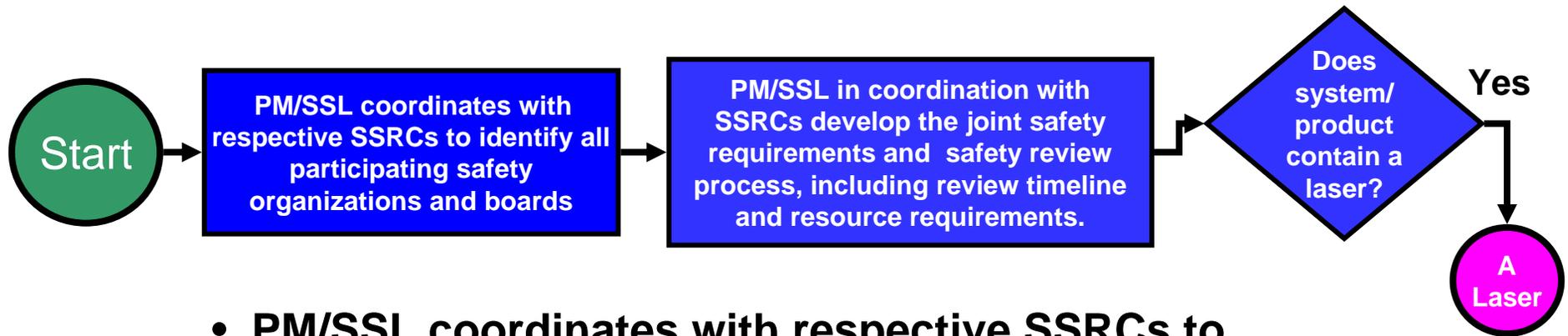
Special Purpose Rifle/77 Grain Ammunition 5.56MM



# Safety Certification/Release Process Time Line

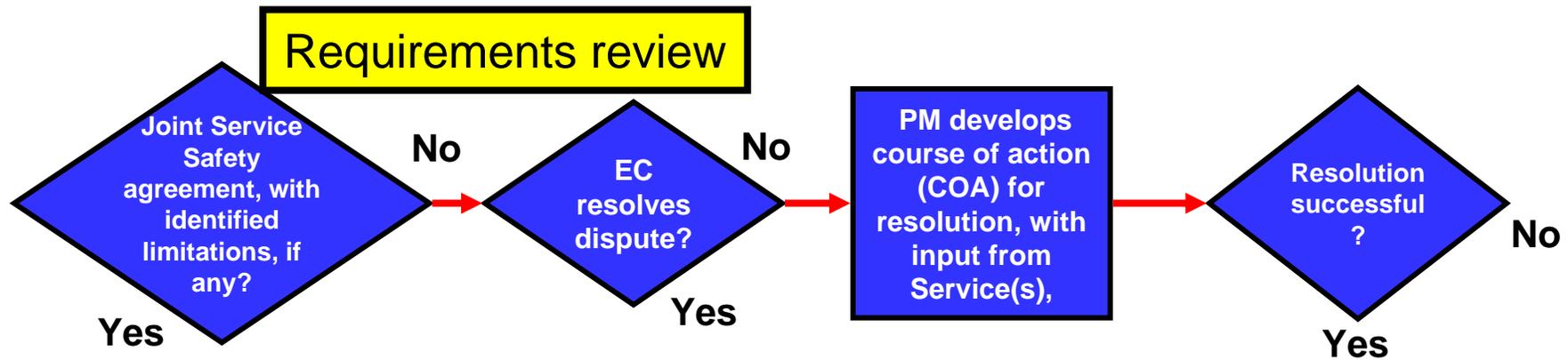
## Grenade Launcher Day/Night Sight Mount





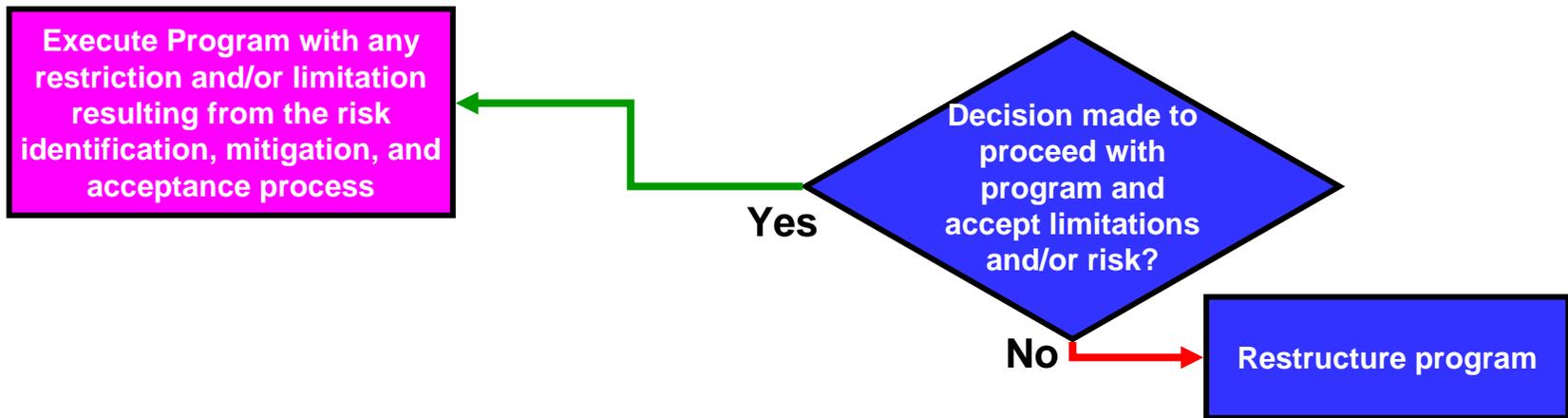
- **PM/SSL coordinates with respective SSRCs to identify all participating safety organizations and boards**
- **PM/SSL, in coordination with SSRCs, develop the joint safety requirements and safety review process, including review timeline and resource requirements.**
- **Does system/product contain a laser? Yes/No?**





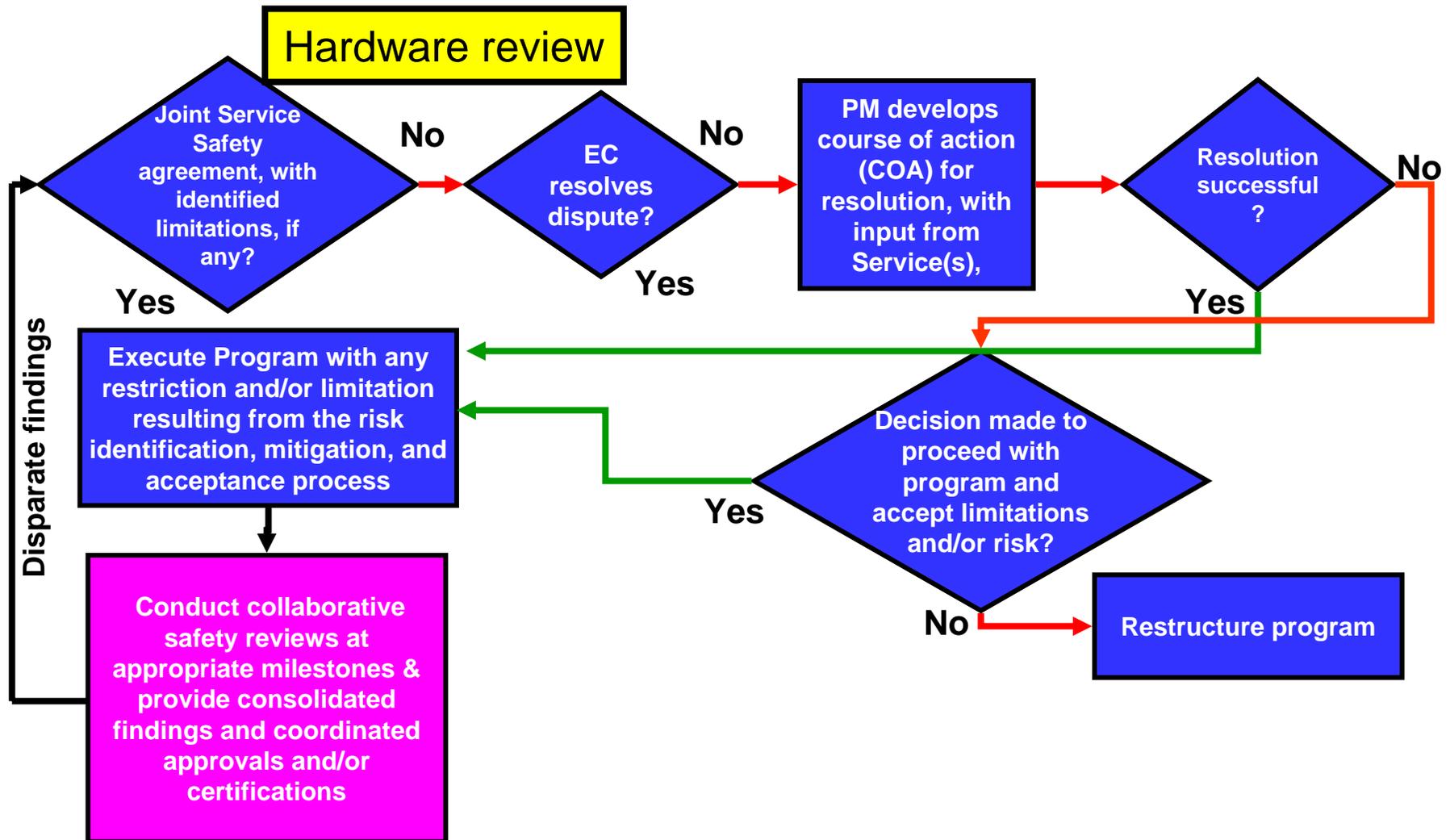
- **Joint Service agreement on safety requirements, with identified limitations, if any?**
- **Executive Council (EC) resolves any safety requirements disputes**
- **If not resolved by EC, PM develops course of action (COA) for resolution, with input from Service(s)**
- **PM elevates safety requirements disparity and suggested COA to PEO with input from Service(s), for a decision to either proceed with program and accept limitations/risk, or restructure program**



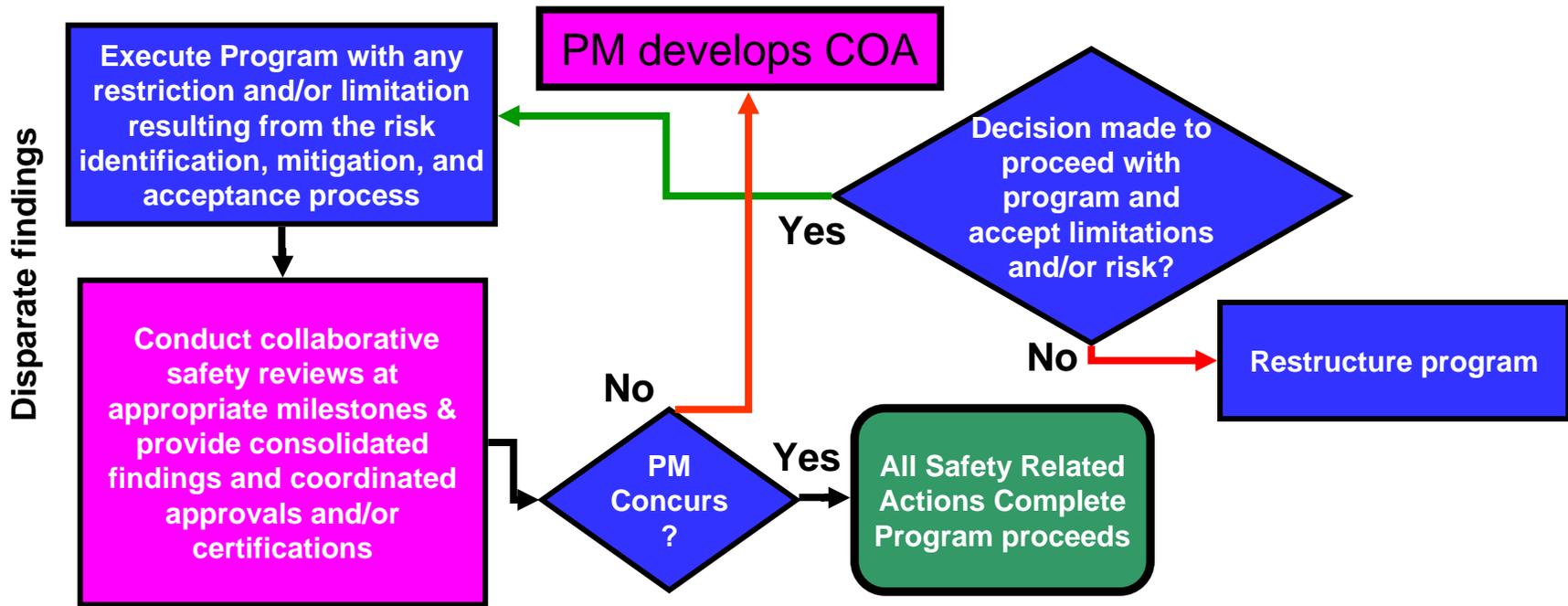


- **Execute Program with any restrictions and/or limitations resulting from the safety requirements identification process**
- **Safety analyses and test data will now be developed as weapon/ordnance item is developed**





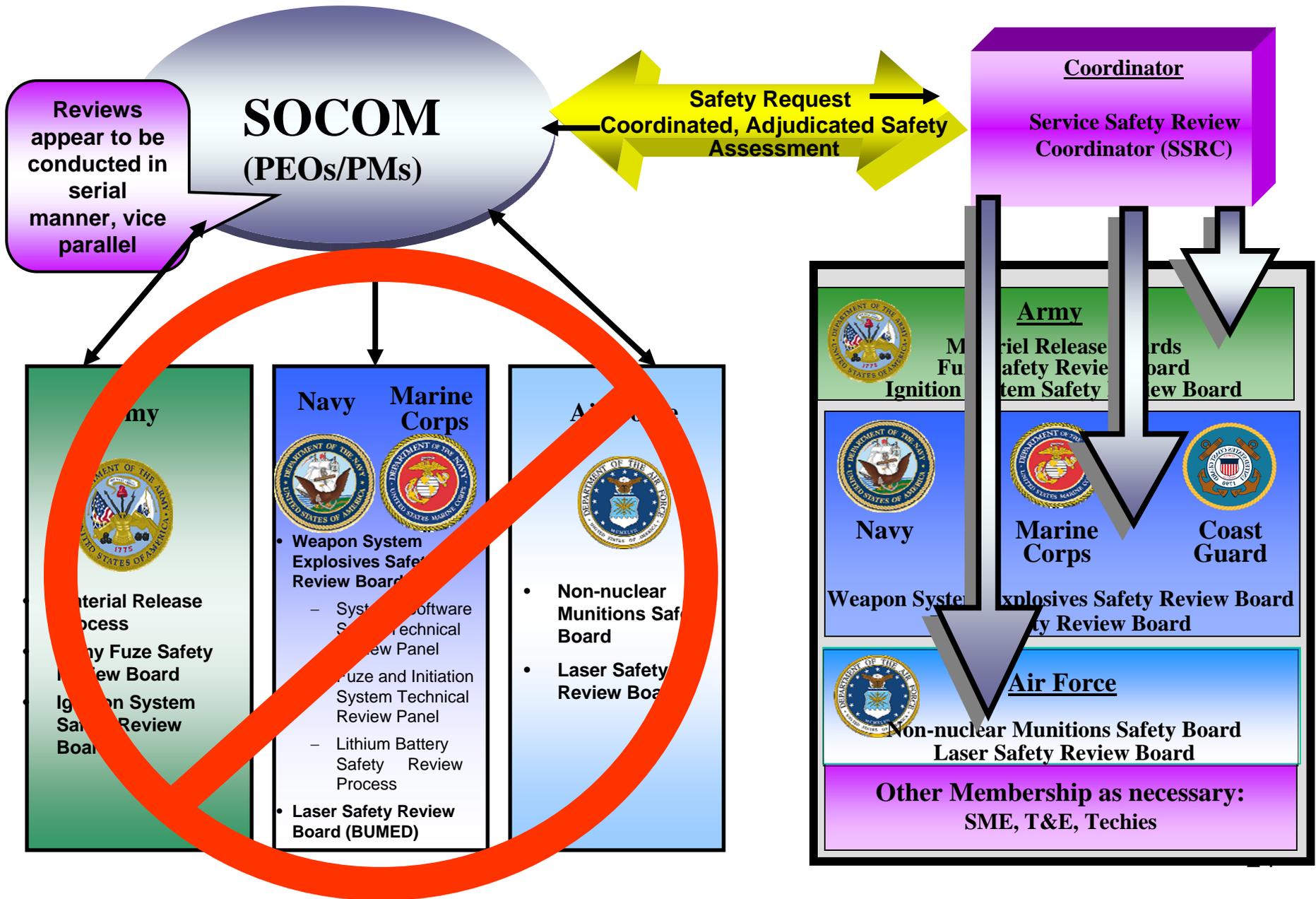
- **Conduct collaborative safety reviews at appropriate milestones & provide consolidated findings and coordinated approvals and/or certifications**
- **Disparate findings resolved through adjudication process**



- If PM does not concur with safety findings/recommendations, PM develops a COA for resolution, with input from Services
- Decision made to proceed with program and accept limitations and/or risk, or restructure the program



# Collaboration in Service Safety Review Process





# Additional Ordnance Items

- **Four Additional Programs**

1. **NICO BTV-1 Bang Flash Grenade**

- Replaces MK 141 Grenade
- Joint safety reviews conducted
- WSESRB Limited Release for USN and USMC, 21 Feb 06
- Army DTC Safety, 9 May 06, stated no objection to release

2. **Anti-Structural Munition (ASM) Grenade**

- Joint Navy, Marine Corps, Air Force limited release, 2 Jun 06
- Joint Army, Navy, Air Force Fuze Board review conducted 19 Sep 06 for Army safety release



# Additional Ordnance Items (Cont'd)

## 3. M72A9 LAW ASM

- Started as two separate safety review processes; Army & Navy
- WSESRB issued limited release for 483 for Navy use, 7 Sep 06
- Army issued safety release for 166, 15 Sep 06
- More data needed for full release of additional quantities; anticipate Joint Army/Navy/Air Force/Marine Corps safety review and release
- Interim solution until release of M72A10 LAW ASM FFE in FY10

## 4. MK 285 Airburst Ammunition for Advanced Lightweight Grenade Launcher

- Qualification testing in progress
- Joint Army, Navy, Air Force Fuze Board review conducted 19 Sep 06 on the fuze design



# SSRC for Weapon System Safety

**Army:** Army Materiel Command, System Safety Office

Primary: Mr. Ken Rose, AMC (AMCPE-SF), phone: (703) 806-8706;

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**Marine Corps:** Marine Corps Systems Command

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**Navy:** Naval Ordnance Safety and Security Activity

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Alternate: (TBD)

**Air Force:** USAF Air Armament Center

Primary: Mr. Preston Parker, USAF Air Armament Center (AAC/SES),

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# Laser System Safety Review POC

## Army:

Primary: Laser Optical Radiation Program, USA CHPPM, phone: (410) 436-3932  
(DSN 584-3932)

Alternate: Mr. David Sliney, USA CHPPM, phone (410) 436-3002 (DSN 584- 3002), email:  
david.sliney@us.army.mil

## Navy/Marine Corps:

Primary: Mr. Sheldon Zimmerman, NSWCDL, phone: (540) 653-1060  
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Alternate: Mr. Robert Aldrich, NSWCDL, phone: (540) 653-1149,  
(DSN 249-1149) email: robert.c.aldrich@navy.mil

## Air Force:

Primary: Laser Safety Hotline, AFRL/HEDO, phone 800-473-3549  
(DSN 240- 4784), email: laser.safety@brooks.af.mil

Alternate: Mr. Stu Hutchinson, AFRL/HEDO, phone: (210) 536-4784  
(DSN 240-4784), email: stu.hutchinson.ctr@brooks.af.mil

## DoD LSSWG Chair (through Jun 07):

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