



December 3, 2010

Memorandum

To: Members of the Board

From: Domenic N. Savini, Assistant Director

Through: Wendy M. Payne, Executive Director

Subj: **Deferred Maintenance and Repairs – Measurement and Reporting¹ – Tab J**

MEETING OBJECTIVE

- Obtain advice and consult from Board members concerning current issues being addressed by the task force.
- Identify any Board concerns concerning measurement and reporting of deferred maintenance.

If you require additional information or wish to suggest another alternative not considered in the staff paper, please contact me as soon as possible. If you have any questions or comments, please contact me by telephone at 202.512.6841 or by e-mail at savinid@fasab.gov.

Thank you.

¹ The staff prepares board meeting materials to facilitate discussion of issues at the board meeting. This material is presented for discussion purposes only; it is not intended to reflect authoritative views of the FASAB or its staff. Official positions of the FASAB are determined only after extensive due process and deliberations.

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BACKGROUND

BACKGROUND

At the October 28 Board meeting the Board reaffirmed its decision to amend the maintenance definition in SFFAS 6, *Accounting for Property, Plant and Equipment* and proceed with the measurement and reporting phase of the project. Staff agreed to provide the Board with a briefing concerning this next phase at December's meeting.

Staff indicated that the task force met three times (prior to the October Board meeting) concerning the measurement and reporting phase of the project and that it had begun drafting requirements. Staff noted that measurement and reporting of DM&R and condition information on equipment (i.e., weapon systems) was a major issue the task force was facing. Due to primarily system integration problems, staff is of the opinion that certain comptroller offices may have to go through significant effort in compiling equipment DM&R estimates and related asset condition information. As a result, staff advises that additional effort may need to be expended so that outreach can be conducted to obtain appropriate agency advice and consultation in regards to equipment.

At the November 17 task force meeting issues related to equipment were addressed along with several other important matters which are reported in this memorandum.

PROJECT GOALS

PROJECT GOALS

Enhance reporting of deferred maintenance and repairs information.²

1. Identify and resolve definitional issues (comparability) related to existing SFFAS 6 terminology.
2. Develop criteria appropriately considered in establishing “acceptable condition.”
3. Consider whether fixed assets should be classified as critical/non-critical (or another alternative) for reporting purposes.
4. Identify and resolve any measurement and reporting issues.
 - a. Identify relevant measures or indicators being used in practice (e.g., condition index, return on investment) and decide if any additional measures should be included in federal financial reports.
 - b. Identify current measurement techniques and emerging techniques for deferred maintenance and repair as well as desired measures or indicators.
 - i. Determine if techniques are desirable and permissible under existing standards.
 - ii. Determine if techniques are comparable (e.g., full cost vs. incremental cost; current cost vs. projected cost).
 - iii. Consider any needed amendments to standards.
 - c. Consider whether reporting should further disaggregate fixed assets by (1) categories such as buildings and equipment, (2) predominant use, or (3) some other recognized method.
 - d. Review SFFAS 6 requirements for explanatory information and revise as needed.
5. Address recognition and measurement of asset impairment – at this time, research regarding asset impairment is being conducted but development of options is not. Consideration of options will be deferred until DM&R amendments are proposed.

² FASAB Project Plan: TAB J-1, Asset Impairment and Deferred Maintenance, October 3, 2008.

PROJECT TIMELINE

PROJECT TIMELINE

STEPS	DATE	MILESTONE	TASKS
1	October 27 - 28, 2010	Board meeting: Review SFFAS - Maintenance Definition for Pre- ballot.	October Tasks: Revise draft SFFAS based on Board member input. Circulate a pre-ballot draft before December meeting.
2	December 2010	Board email: Review Pre-ballot Draft SFFAS Approve Ballot Draft SFFAS	Request Board comments on the pre-ballot with the objective of a Ballot draft before the next meeting. Transmittal to Principals: begin 90 day review period. Transmittal to Congress for 45 day review period will occur in early 2011. ³ REMINDER: The CFO Act requires a Congressional review of accounting standards addressing capital assets. 90 day Principal review period ends circa February 2011.
3	February 2011	Board meeting: Presentation of potential measures or indicators.	The Board will consider an inventory of currently used and emerging measures and indicators. Any task force recommendation regarding reporting these measures will be provided. If possible, a decision regarding whether potential measures or indicators should be considered further for financial reporting purposes is sought.
4	March – May 2011	Task force	Considering Board input, summarize current and emerging techniques for measuring DM&R and other desired indicators. Identify any issues that would prevent current approaches from being suitable for financial reporting purposes. Consider any desired dis-aggregation of PP&E (e.g., by predominant use and/or asset category). Develop recommendations.
5	June 2011	Board meeting: Consider draft ED on measurement and reporting	Review the staff draft and identify any Board concerns.
6	August 2011	Board meeting: Consider revised draft ED on measurement and	Review the staff draft and identify any Board concerns so that a pre-ballot draft can be provided via e-mail.

³ The 112th Congress is scheduled to meet from January 3, 2011 to January 3, 2013.

PROJECT TIMELINE

STEPS	DATE	MILESTONE	TASKS
		reporting.	
7	September 2011	Board email: Pre-ballot draft ED – on measurement and reporting.	Request Board comments on the pre-ballot with the objective of a Ballot draft before the next meeting. Comments due by September 15
8	October 2011	Before or at Board Meeting: Ballot to approve and issue ED Release ED - measurement and reporting for comment.	Ballot draft provided by early August and ballots required by NLT October 31 to allow for member consideration of any alternative views. If none, the ED would be issued before the meeting. Release ED.
9	February 2012	Board meeting: Consider comments and issues. Schedule a Public Hearing as appropriate.	Review respondent comments and discuss issues including staff recommendations. Provide any revisions to the draft SFFAS as a pre-ballot draft via email for comment between meetings. Proceed with final ballot SFFAS for the June 2012 meeting.
10	June 2012 – August 2012	Board meetings: Review and Approve SFFAS on measurement and reporting.	Transmittal to Principals: begin 90 day review period and concurrent transmittal to Congress for 45 day review period. REMINDER: The CFO Act requires a Congressional review of accounting standards addressing capital assets.
11	September, 2012	Task force: Asset Impairment.	Work with the task force would turn to asset impairment upon issuance of the ED on DM&R – Measurement & Reporting circa Fall 2012.

TASK FORCE ISSUES

TASK FORCE ISSUES

1. Project Goal # 2: Criteria appropriately considered in establishing “acceptable condition.”

Draft under consideration: The task force is considering the following draft guidance prepared by staff:

Acceptable Condition - Managerial Judgment Required

1. Because DM&R result from failing to perform activities when they “should have been” or “were scheduled to be” performed, management’s plan for maintenance and repair is a relevant consideration. In planning for maintenance and repairs, management determines what level of condition it wishes to be sustained – that is, what the target “acceptable condition” is for various items of property, plant, and equipment (PP&E). For certain assets such as buildings and infrastructure “acceptable condition” can be viewed as falling along a continuum that illustrates varying degrees of asset condition or functionality ranging from barely usable (limited functionality) to an as-new condition. That is, management might determine that under certain circumstances ‘acceptable condition’ is barely usable condition for certain PP&E whereas as-new condition would be required for other PP&E.⁴ However, for other assets such as military equipment (i.e., weapons systems), “acceptable condition” is a discrete state. That is, the asset is either capable or not of performing its mission. In such cases, management might have less discretion in determining “acceptable condition.”

Below are illustrations⁵ of both these concepts:

⁴ For depot maintenance purposes the Department of Defense is required by statute to include equipment upgrades as part of its M&R definition. However, for purposes of complying with this standard, equipment upgrades are excluded from the definition of M&R and should be reported separately. 10 USC 2460 does not apply to M&R of fixed plant assets such as buildings, structures, pavements, and trackage, even when such assets are physically located at a DOD maintenance depot and are used to support depot maintenance of equipment.

⁵ The first illustration dealing with facilities, non-military equipment and personal property was adapted from: *Options for Infrastructure Reporting*, 2000. Walker/Clarke/Dean. University of New South Wales.

TASK FORCE ISSUES

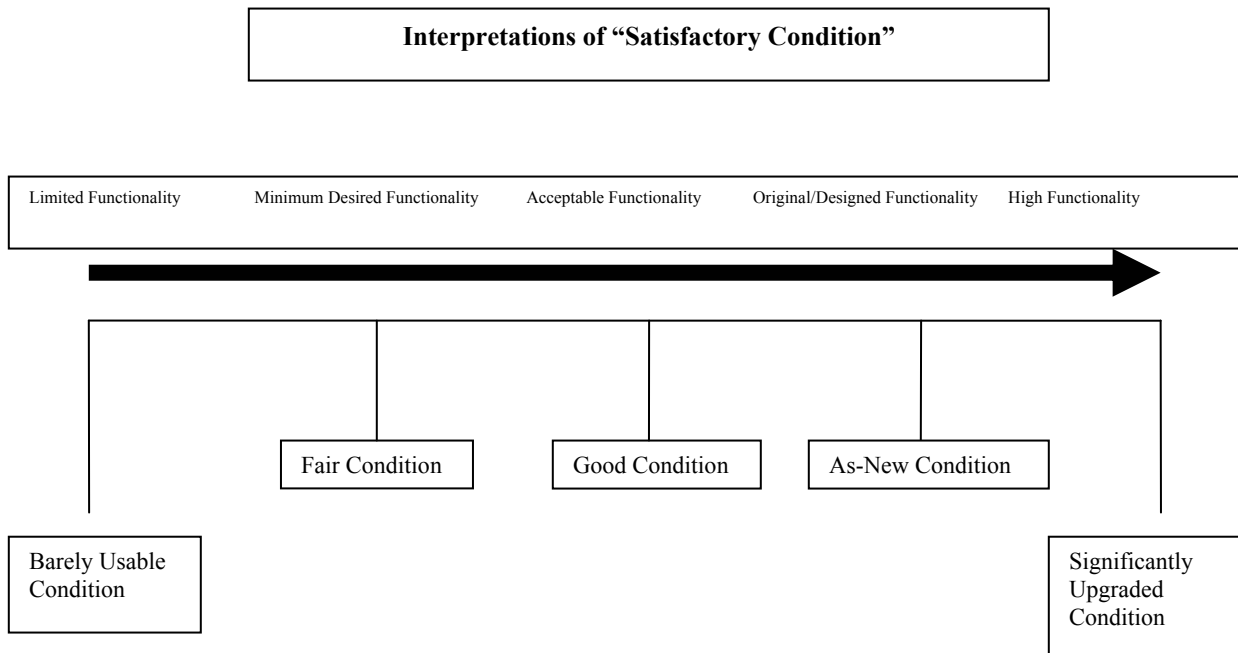
Planning for Acceptable Condition

2. Management may consider a variety of factors in planning its target acceptable condition. Such factors might include (1) health and/or safety considerations, (2) potential environmental impacts, (3) the operational or mission consequences of asset malfunction or downtime, and (4) asset replacement challenges or difficulties.

Background

In an Australian study⁶ the authors addressed the issue of what is “acceptable” (“satisfactory” in their case) and found that “satisfactory condition” could be placed on a spectrum: minimally acceptable, fairly acceptable (fair condition), acceptable (good condition), as-new condition and upgraded condition. That is, management might determine that under certain circumstances satisfactory condition is achieved by a “fair” (minimum functionality) rating whereas in other circumstances an “as-new” level of functionality would be required.

Below is an illustration of the study results:



⁶ *Options for Infrastructure Reporting*, 2000. Walker/Clarke/Dean. University of New South Wales.

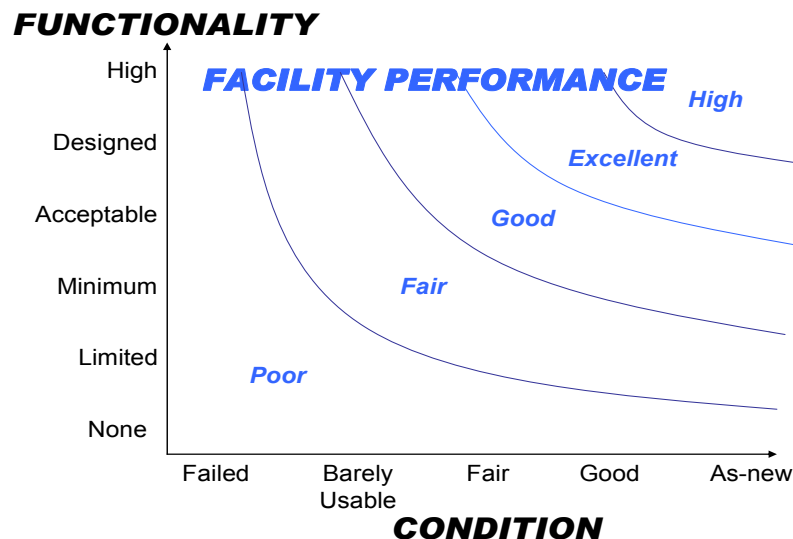
TASK FORCE ISSUES

Task force Concerns

The task force is now reconsidering the above illustration(s) as a result of our November 17 task force meeting. Although there is no clear consensus, the following points were made regarding interpretations of “acceptable condition”:

- Upgrades should be excluded from the illustration.
- Military equipment does not fall along a functionality continuum and needs to be separately illustrated.
- Regarding buildings/facilities, asset condition and functionality do not always follow along the same continuum as the Australian researchers have noted.
- One task force member has asked that we consider a 2008 US Army Corps of Engineers Research Laboratory publication⁷, which contends that:
 - An asset’s physical condition⁸ and its functionality are two distinct and independent states. Instead of falling along the same continuum, they fall along two, orthogonal (right-angles) continuums, and
 - Physical condition and functionality must and can be measured separately. An asset’s physical condition cannot be inferred from the measure of its functionality. Neither can an asset’s functionality be inferred from the measure of its physical condition.

The Army model can be notionally represented by the figure below:



7 Grussing, M.N., D.R. Uzarski, and L.R. Marrano, “Building Infrastructure Functional Capacity Measurement Framework,” ASCE Journal of Infrastructure Systems, (American Society of Civil Engineers), December 2009, pp. 371-377

8 The word “condition” connotes a physical state resulting from deterioration over time or damage to an asset’s component parts. Condition, as used here, has nothing to do with functional obsolescence of a facility due to changes in mission, laws, or design practice.

TASK FORCE ISSUES

Questions for the Board

Is the scope of the task force deliberations on this goal consistent with your expectations for the project?

Do you believe guidance for establishing “acceptable condition” should be included within the standards, in an appendix, or through other means?

TASK FORCE ISSUES

2. Project Goal # 3: Consider whether fixed assets should be classified as critical/non-critical (or another alternative) for reporting purposes.

Draft under consideration: The task force is considering the following draft guidance prepared by staff:

Required Presentation –
Schedule of Deferred
Maintenance and Repairs

1. Information about the DM&R cost to remedy PP&E is required. The information should (1) include amounts and/or balances for each category and class of PP&E disclosed in the notes to the financial statements, (2) categorize assets by operational status (e.g., active/inactive, mission capable/non-mission capable, serviceable/non-serviceable) and (3) be presented (i.e., aggregated) in such detail to provide relevant, reliable and consistent information. If DM&R information is provided for non-capitalized general PP&E, agencies should treat this as a separate category of PP&E and separately report these amounts by classes within the category. Agencies also may report DM&R by other classification schemes such as predominant use. If so, the agency should also provide a reference key (i.e. cross-walk) to the categories and classes disclosed in the notes and any non-capitalized general PP&E.

TASK FORCE ISSUES

Schedule of Deferred Maintenance

	(a)	(b)	(c)	d = b minus c	e	f = a + d - e
<u>Asset Category or Class: PP&E or Fixed Assets</u>	<u>2010 Ending Balance</u> <u>DM&R</u>	<u>2011 Total</u> <u>M&R</u>	<u>2011 Executed</u> <u>M&R</u>	<u>2011</u> <u>Difference</u>	<u>2011 Agency</u> <u>Adjustments</u>	<u>2011 Ending</u> <u>balance</u> <u>M&R</u>
<u>Active:</u>						
Land						
Structures/ Facilities						
Equipment						
Capitalized Leases						
Software						
Other						
subtotal						
<u>Inactive:</u>						
Land						
Structures/ Facilities						
Equipment						
Capitalized Leases						
Software						
Other						
subtotal						
Total						

Note 1 - Agency Adjustments: Corrections, closures of DM&R projects, Demolitions, and other dispositions.

TASK FORCE ISSUES

Background

SFFAS 6, paragraph 84 makes classifying assets as either critical or non-critical optional. Since agencies need to follow Federal Real Property Profile (FRPP)⁹ reporting guidelines that require classification into four (4) categories (mission critical, mission dependent-not critical, not mission dependent, and not rated)¹⁰, does it stand to reason that FASAB require a similar classification as opposed to keeping it optional?

Task force Concerns

The task force rejected the concept of criticality noting that it provides little to no value in decision making. This results from business practices that have a tendency to classify all assets as critical either due to definitional problems or parochial points of view.

Instead, the task force recommends that we substitute Active and Inactive classifications which are more meaningful, reflect actual asset usage, and complies with prior GAO recommendations¹¹.

Questions for the Board

SFFAS 6 provided for a period of experimentation regarding DM reporting. Do you wish to pursue greater comparability in the area of asset classification now?

Do you concur with the task force's recommendation that asset criticality classifications be eliminated and substituted with active/inactive classifications?

⁹ Administered by the General Services Administration, the [FRPP](#) is the "single, comprehensive, and descriptive database of all real property under the custody and control of all executive branch agencies, except when otherwise required for reasons of national security," in accordance with Executive Order 13327. The FRPP report includes summary data for the federal government's inventory of land, building, and structure assets around the world, as of September 30th each year.

¹⁰ General Services Administration definitions as contained in the 2009 agency reporting guidance: (1) Mission Critical – without constructed asset or parcel of land mission is compromised; (2) Mission Dependent, Not Critical – does not fit into Mission Critical or Not Mission Dependent categories; (3) Not Mission Dependent – mission unaffected; and (4) Not Rated – used for DoD/BRAC properties only.

¹¹ GAO Report # GAO-09-10 dated October 2008, *Federal Real Property. Government's Fiscal Exposure from Repair and Maintenance Backlogs is Unclear*. Task force representatives point to GAO conclusions on page 24 which discusses capturing "true" fiscal exposure by partially adjusting for assets where M&R projects would not be performed due to an asset's status to mission.

TASK FORCE ISSUES

3. Project Goal # 4: Identify relevant measures or indicators being used in practice (e.g., condition index, return on investment) and decide if any additional measures should be included in federal financial reports.

Draft under consideration: The task force is considering the following draft guidance prepared by staff:

Required Presentation - Schedule of Asset Condition Information

1. Quantitative reporting of information related to asset condition¹² is required. (See Page 18 below for the illustration entitled, "Schedule of Asset Condition Information.")

2. Management should report an indicator or a metric related to asset condition for each asset category and class shown in the basic information (i.e. balance sheet or notes). Management should determine at what level of specificity such information should be presented; i.e. highly summarized level for an asset category or break-out by classes or component levels. Management should consider selecting one or more indicators from the following examples in subparagraph a. below.

a. There are many factors that may influence, relate to or reflect asset condition such as weather, funding levels and utilization. Since assessing asset condition cannot be solely measured in financial terms or using a prescribed formulaic approach, management must exercise judgment in this regard. For example, management needs to consider the physical state or operational status of the asset, current mission requirements, and the asset's continued ability to perform (i.e., remaining service potential), in order to best address asset condition.

¹² The FASAB glossary defines "condition" as follows (bolding & underscoring added for emphasis):

The physical state of an asset. The condition of an asset is based on an evaluation of the physical status/state of an asset, **its ability to perform** as planned, and **its continued usefulness**. Evaluating an asset's condition requires knowledge of the asset, **its performance capacity** and its actual ability to perform, and expectations for its continued performance. The condition of a long-lived asset is affected by its durability, the quality of its design and construction, its use, the adequacy of maintenance that has been performed, and many other factors, including: accidents (an unforeseen and unplanned or unexpected event or circumstance), catastrophes (a tragic event), disasters (a sudden calamitous event bringing great damage, loss, or destruction), and obsolescence.

TASK FORCE ISSUES

The following are examples of indicators or metrics that management can consider when assessing asset condition. Not all of these indicators are conclusive or definitive measurements of asset condition. However, they represent information related to asset condition and should be considered as reportable elements for RSI reporting purposes:

Physical state or status of the asset.

1. Asset damage reports.
2. Condition assessment surveys.
3. Readiness Reports.
4. Equipment Condition codes (e.g., serviceable / unserviceable).
5. Operational Condition codes (e.g., mission capable / non-mission capable)
6. Asset Status codes (e.g., active / inactive).
7. Condition Index (CI) or ratio of DM&R to related plant replacement values as described in the Federal Real Property Council's (FRPC) User Guidance for Real Property Reporting.
8. Building Condition Index (BCI) as described in the Federal Facility Council Technical Report #147.

Ability to perform.

9. Shortened-life estimates due to DM&R.
10. Deferred depot events divided by Total depot events.
11. Current or design intent.
12. Service level standards.
13. Code Compliance.

Continued usefulness.

14. Remaining future-life estimates.
15. DM&R divided by Total M&R.
16. Return on Investment or Cost versus Benefit analyses
17. Sustainment Rate.
18. Readiness Reports.

Performance capacity/Utilization.

19. Missions excluded due to asset condition.
20. Space used to space available.

TASK FORCE ISSUES

21. Demanded services to available capacity.
22. Asset Utilization Index.

Other potential indicators.

23. Asset age.
24. Asset Restrictions.
25. Adequacy of performed M&R.
26. DM&R backlog amount.
27. DM&R Reductions/Increases.

b. In this schedule agencies should ensure that for each asset category or class shown in the body of the financial statements (i.e. balance sheet or notes) that a corresponding indicator or metric reflecting asset condition is presented. Management should determine at what level of specificity such information should be presented; i.e. highly summarized level for an asset category or break-out by subcategories or component levels.

c. Key performance measures such as target CI, target utilization or capacity levels or some other targeted operational (e.g., mission readiness) or supply condition codes:

1. Agency management will determine at what appropriate level of aggregation such information should be reported.
2. Management should report appropriate variances between what was expected and the actual results and explain the difference(s).

d. Management should ensure that DM&R (sub)totals articulate and correspond at least to the same level of detail as contained in the body of the financial statements (i.e. balance sheet notes). Appropriate reference keys (i.e. cross-walks) may be required especially if DM&R breakout is either in greater detail or classified differently such as by functional use, than the asset categories contained in the body of the financial statements.

TASK FORCE ISSUES

Schedule of Asset Condition Information

Maintenance and Repairs

	<u>Buildings</u>	<u>Buildings</u>	<u>Equipment</u>	<u>Personal Property</u>	<u>Other Indicators:</u>
<u>Asset Category or Class</u>	<u>Replacement Value</u>	<u>Facility Physical Status Indicator</u>	<u>Mission Capability:Service Level Standards</u>	<u>Serviceability and/or SupplyCondition Codes</u>	<u>Age, Mission,Dependency, Restrictions, etc.</u>

Active:

- Land
- Structures/ Facilities
- Equipment
- Capitalized Leases
- Software
- Other
- subtotal

Inactive:

- Land
- Structures/ Facilities
- Equipment
- Capitalized Leases
- Software
- Other
- subtotal

Total

TASK FORCE ISSUES

Background

At the December 2009 Board meeting, the Board agreed that SFFAS 6 should provide for more robust guidance regarding the factors management should consider in determining “acceptable condition.”

Although comparability was an early issue that the task force was concerned about, after some discussion it was clarified with a GAO representative that agency differences needed to in fact be considered. The task force suggested the use of trend information since no “one-size-fits-all” approach seems plausible. Please note that this is consistent with both prior and current Board comments that allow for agency flexibility since the Board noted that the concepts of “acceptable services” and “acceptable condition” vary between and among entities.¹³ Also, the FFC notes *that “what constitutes an acceptable level of condition will vary by agency, mission, by the importance of specific facilities (e.g. mission critical, mission supportive, mission neutral) and/or by types of facilities.”*¹⁴

The task force is considering criteria or metrics that are useful for assessing “condition” as well as a framework for communicating what management finds “acceptable.”

Task force Concerns

Buildings and facilities.

Among the indicators reviewed, the task force proposes that the Condition Index (either FCI or BCI¹⁵) along with related Replacement Value be considered the primary indicators of condition. Secondary indicators currently under consideration are shown on pages 16 and 17 above. Because current FRPP reporting requirements include the annual reporting of condition indices and plant replacement values, the task force is of the opinion that any agency burden resulting in change to the current SFFAS 6 requirements would be nominal.

Weapon systems and other personal property.

At the November 17 task force meeting a DoD logistics representative expressed opinions concerning both equipment condition reporting and related asset condition indicators. Specifically, the representative stated that mission capability and serviceability may not in fact be the best indicators for either weapon systems or personal property, respectively. Instead, the suggestion was made that more discrete indicators such as the following be considered by the Board:

¹³ FASAB, SFFAS 6 Accounting for Property Plan & Equipment, Paragraph 78 (footnote 1).

¹⁴ Federal Facilities Council, Key Performance Indicators for Federal Facilities Portfolio. (The National Academies Press), 17.

¹⁵ Building Condition Index – An engineering-derived condition assessment approach, called the Building Condition Index (BCI) series, has been developed by the U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL) to measure building asset condition.

TASK FORCE ISSUES

- a. Number of depot events deferred.
- b. Estimate of “lost” or shortened life (i.e., reduced life impacts or reductions) due to DM&R.
- c. Types of missions impacted or foregone due to DM&R.
- d. DM&R as a percentage of total M&R.

In the representative’s opinion, it was further noted that such information would not adversely impact national security; taken to mean in context with the level of aggregation currently being reported, i.e., major asset class.

Questions for the Board

What reactions or ideas might members offer on the current draft language?

Are there other alternatives regarding condition reporting that the Board wishes the task force to explore?

TASK FORCE ISSUES

4. Project Goal # 4b(i) - Determine if techniques are desirable and permissible under existing standards.

Draft under consideration: The task force is considering the following draft guidance prepared by staff:

Consistency

10. Consistency in measurement and reporting significantly adds to the informational value of DM&R because trend information is useful to decision makers. Therefore, management should use consistent techniques and measurements and reporting methods from year-to-year. Changes in methods should be accompanied by an explanation of the changes along with a restatement of all presented years. Management should provide an explanation if for any period an amount or balance is not restated.

11. Management should determine which of the acceptable DM&R assessment methods (see paragraphs XX through XX below) it should apply to each asset category or class. However, once determined it is required that methods be applied consistently from period to period. Should changes in methodology later occur, agencies should report such changes in accordance with the criteria in paragraph XX above.

Background

SFFAS 6 paragraph 81 states that, *“It is desirable that condition assessment surveys be based on generally accepted methods and standards consistently applied.”* Allowing agencies to choose among competing techniques, methods, and/or practices from year-to-year has resulted in inconsistent reporting.

Task force Concerns

The task force agrees with the concept of comparability in both measurement and reporting. Individual members have stated that there is a need for reliable, auditable and repeatable data to exist. To that end, both DoD-Buildings and the Forest Service have agreed to help refine the reporting templates previously illustrated on pages 13 and 18.