

1.1.3 ESTATE APPRAISAL (EA) INSTRUCTION: CONDITION ASSESSMENTS



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Glossary

Acronym	Name	Acronym	Name
AS/NZS	Australian Standard/New Zealand Standard	EUMS	Estate Upkeep Maintenance Schedule
BEAP	Base Engineering Assessments Program	EU	Estate Upkeep
BM	Base Manager	GEMS	Garrison Estate Management System
CF	Contribution Factor	HRU	Head of Resident Unit
CR	Criticality Rating	ICT	Information and communications technology
DEQMS	Defence Estate Quality Management System	N/A	Not Applicable
DEPU	Directorate Estate Planning and Upkeep	PBSM	Performance-Based or Scheduled Maintenance
E&IG	Estate & Infrastructure Group	SDT	Service Definition Table
EA	Estate Appraisal	WO	Work Order
EMOS	Estate Maintenance and Operation Services	WHS	Workplace Health and Safety
ERIM	Estate Register Information Model		

Contents

Document Properties	1
Glossary	2
Contents	3
1 Context	4
1.1 Purpose of this Instruction	4
1.2 Scope	4
1.3 Applicability	6
1.4 Relevant EA Instructions	6
2 Condition Assessment Approach	6
2.1 Approach.....	6
2.2 Deliverables	7
2.3 Process Enablers.....	7
2.4 Resources.....	7
3 Instruction Process Detail	8
3.1 Mobilisation	8
3.2 Conduct EA.....	8
3.3 Reporting and Upload to GEMS	9
4 Attributes and Measuring Points	9
4.1 Attributes and measuring points for collection	9
5 Stakeholders	12
5.1 Stakeholders and management requirements.....	12

1 Context

1.1 Purpose of this Instruction

- 1.1.1 The intent of this instruction to detail the process to undertake Condition Assessment Estate Appraisal (EA) activities in accordance with the EA Framework. Condition Assessments must be conducted in accordance with this instruction to meet the requirements of the Service Delivery Table (SDT).
- 1.1.2 Condition Assessments are physical assessments of an assets condition, functionality and remaining life conducted as part of Performance Based or Scheduled Maintenance (PBSM) by the EMOS contractors or their subcontractors.
- 1.1.3 The EA framework consists of the:
- EA Policy – which provides the context and principles of EA in Defence;
 - EA Plan – which clarifies roles and responsibilities, identifies stakeholder management outcomes and presents the overall broad process for how EA is to be undertaken and the expected outcomes; and
 - EA Instructions (of which this document is one) – which provide detailed instructions specific to an asset class or type of appraisal where required. This can include where legislation relates to a specific asset type resulting in additional appraisal requirements.

1.2 Scope

- 1.2.1 Condition Assessments are appraisals that form part of the EA Conduct activity within the EA Framework. Condition Assessments are to be conducted as part of PBSM to meet appraisal frequency requirements for these assets.
- 1.2.2 The intent of Condition Assessments is that the asset maintainers have familiarity with the performance of the asset and possess suitable subject matter expertise to make an informed assessment of the asset's overall asset condition and functionality.
- 1.2.3 Condition Assessments measure only the condition, functionality and remaining life of an asset during PBSM. That is, Condition Assessment does not capture any additional attributes and measuring points of other appraisal types, such as work orders and risk profiles that are captured during Scheduled EA.
- 1.2.4 The decision tree for conducting either Condition Assessments or Scheduled EA is shown in Figure 1. Condition Assessments apply to Equipment, Equipment Systems, Infrastructure and Infrastructure Systems where there is PBSM scheduled.

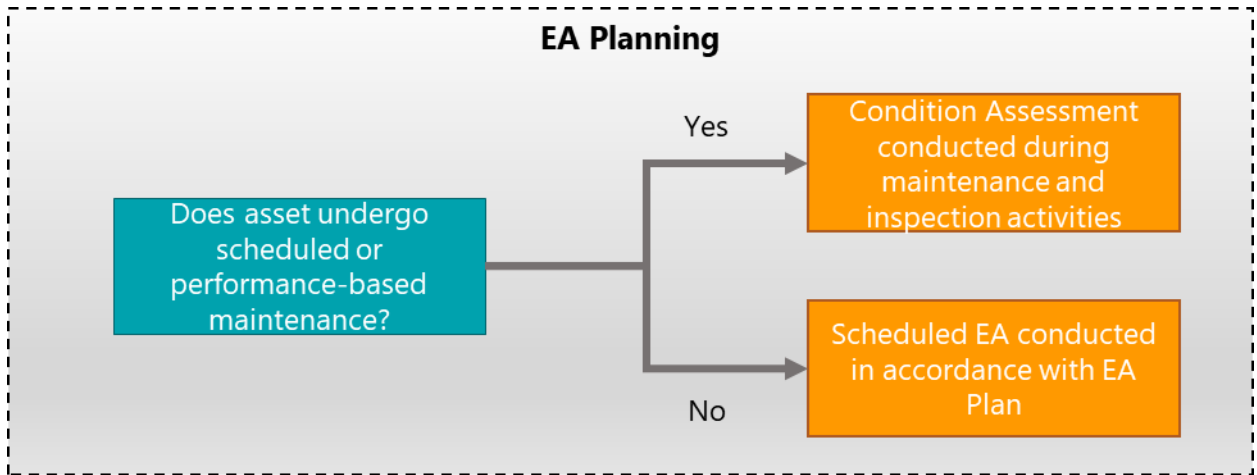


Figure 1 EA conduct decision tree

1.2.5 The estate classes that typically fall under Scheduled EA and Condition Assessments are described in Table 1 below.

Table 1 Estate Class 1 scope for Scheduled EA and Condition Assessment

Scheduled EA	Condition Assessment
Building	Equipment
Hazard	Equipment System
Land Parcel	Infrastructure
Land Space	Infrastructure System
Level	
Precinct	
Property	
Space	
Equipment (where there is no scheduled maintenance plan)	
Equipment System (where there is no scheduled maintenance plan)	
Infrastructure (where there is no scheduled maintenance plan)	
Infrastructure System (where there is no scheduled maintenance plan)	

1.2.6 Condition Assessments are distinct from Scheduled EAs, the latter refers to appraisals scheduled during EA Planning to meet appraisal frequency requirements for assets (described in 1.1 Estate Appraisal Plan Appendix 8 – Frequency of Physical Appraisals) and capture assets that have no prescribed maintenance plan. The conduct of Scheduled EA is addressed in a separate instruction document.

1.2.7 There are several activities which input to EA Conduct, of which Condition Assessments are part of, as shown in Figure 2. These include periodic Master Planning, annual Desktop Review and EA Planning. These activities are outlined in 1.1 EA Plan and the relevant instructions.

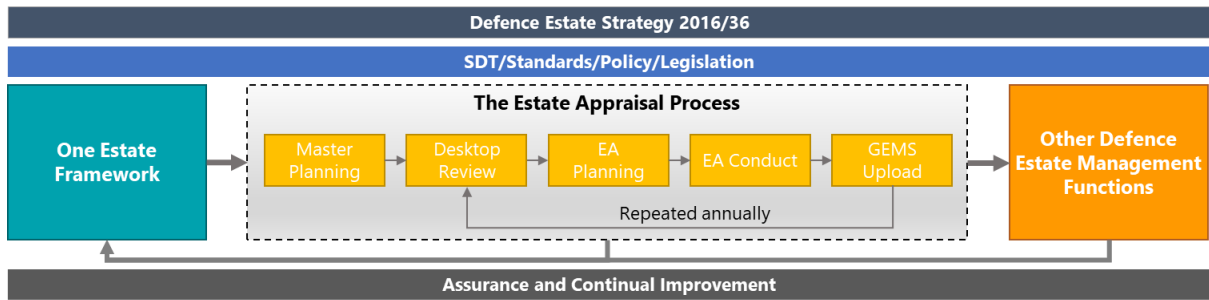


Figure 2 The EA framework and interfaces with other estate management functions

1.2.8 The attributes and measuring points described in Section 4 are to be collected for each physical appraisal activity for upload into GEMS. The ERIM contains detailed definitions of the attributes and measuring points.

1.3 Applicability

1.3.1 This instruction applies to EMOS contractors and specialist subcontractors undertaking Condition Assessments as part of maintenance activities on elements of the Defence Estate.

1.3.2 This instruction applies to appraisals conducted during PBSM of all Defence assets.

1.3.3 The frequency to conduct Condition Assessments is driven by the minimum maintenance frequency for the asset as dictated in the Service Definition Table (SDT).

1.3.4 The EA Framework recognises that EA is an integral part of Defence’s overall estate management approach. The EA Framework supports the Defence Estate Strategy 2016/36 and operates within the One Estate Framework, as illustrated in Figure 2.

1.4 Relevant EA Instructions

1.4.1 Due to the different properties and appraisal requirements of some asset types, specific guidance is provided for relevant estate classes in the EA Instructions included as Appendix 8 to *1.1 EA Plan*. These instructions include appraisal requirements for Natural Assets, Linear Assets, Training Areas and Ranges and others as listed in Appendix 8.

2 Condition Assessment Approach

2.1 Approach

2.1.1 The core activity of the assessors is to assess the current condition, functionality and remaining life of an asset or system against specified target performance standards. While Condition Assessments are not meant to be exhaustive, the maintainer conducting the appraisal must possess appropriate subject matter knowledge to provide an objective assessment of the overall asset condition, functionality and remaining life.

2.1.2 Recommendations arising from the conduct of Condition Assessments should also be considered as part of the overall Scheduled EA process. Depending on the scope and priority of the recommendation, some work orders may be directed through the responsive maintenance process. See Section 2.7 of *1.1 EA Plan*.

2.1.3 Conduct of Condition Assessments under this instruction consists of:

- Conduct EA – identify changes to estate data (attributes) during the maintenance activity; and
- Upload to GEMS – report against the EA Schedule and provide updated estate data for upload to GEMS.

2.2 Deliverables

2.2.1 The primary deliverables for Condition Assessment activities are outlined in Table 2.

Table 2: Scheduled EA deliverables list

Program	Deliverables
Inputs	<ul style="list-style-type: none"> ▪ Asset information, including maintenance and performance history. ▪ Existing asset appraisal data.
Outputs	<ul style="list-style-type: none"> ▪ Collection of relevant EA attributes. ▪ Recommended works – captured as part of completed certificates.

2.3 Process Enablers

2.3.1 There are a number of enablers for the conduct of Condition Assessment, including information inputs, personnel qualifications and systems.

2.3.2 Information inputs to Condition Assessments include:

- PBSM Schedule – the asset maintenance and inspection schedule developed by the EMOS contractors must consider any legislative requirements for asset inspection frequencies, Commonwealth’s requirements under the Base Services Contract (including the Services Definition Table (SDT)) and the asset’s manufacturer’s recommendations;
- Asset information – including maintenance history, incidents and compliance requirements. This includes information in EMOS contractors’ own Information Management System (IMS), and any information stored in GEMS;
- Existing appraisal data – existing attributes are to be reviewed against the current state of the asset, including all attributes for appraisal and work orders from previous appraisals; and
- Standards and legislated requirements – applicable documents for compliance assessment based on asset type (ERIM), including Defence policy, heritage and environment and training area management plans, risk registers, applicable legislation and manufacturers specifications.

2.4 Resources

2.4.1 Personnel are required to be suitably qualified for conducting appraisals, including:

- Hold knowledge and expertise on asset classes where there are compliance requirements;
- Have undertaken professional development to enable the appropriate conduct of EA as per appraisal requirements; and
- Have undertaken professional development to understand the use of contractor systems.

2.4.2 Where suitably qualified personnel are not available or specific expertise is required on individual asset classes, the EMOS contractors are to procure qualified subcontractors.

- 2.4.3 EMOS contractors' IMS are required to manage estate data and upload appraisal outputs to GEMS.

3 Instruction Process Detail

3.1 Mobilisation

- 3.1.1 Mobilisation is as per Scheduled EA, as the Condition Assessments are expected to be an extension of Scheduled EA, for equipment and infrastructure that have defined maintenance plans and undergo maintenance checks at specific intervals. Refer Section 3.1 of 1.1.2 *Scheduled EA Instructions*.

3.2 Conduct EA

- 3.2.1 Condition Assessments are to be conducted as part of maintenance activities. Therefore mobilisation (as per other types of EA) is not a part of this instruction.
- 3.2.2 Carry out the assessment for the selected assets to identify changes to the estate data.
- Appraisals are to be conducted in accordance with the guidance for specific assets types and locations, as detailed in the EA Instructions described in 1.4;
 - Condition Assessments are typically visual appraisals only, however, if the PBSM activity requires an intrusive investigation, then the subcomponent of the asset should be considered as part of the assessments;
 - The assessor should also consider the asset's historical performance and maintenance history in their appraisal' and
 - Appraisal attributes are summarised in Section 4. Estate Profile Ratings Instructions for appraisal attributes are detailed in Appendix 7 of 1.1 *EA Plan*.
- 3.2.3 Identify rectification and mitigation actions aimed at resolving the gap between target performance standard and the observed performance profile. These are captured as work orders, as outlined in Section 4.
- 3.2.4 Manage safety and compliance concerns (if required). The assessor is to use Work Health and Safety (WHS) legislation as the overarching guidelines in addressing health and safety concerns on site, followed by EMOS contractors' WHS management processes. Broadly, this should consist of:
- Where there is an immediate safety or compliance concern with the condition of an appraised system, the system will first be made safe with subsequent work to be identified;
 - Identify to building occupants and person in control of site immediately;
 - Escalate to BM; and
 - Notify the EA Program Manager within the required notice period.
- 3.2.5 Update system list (if required) where there are additional assets or missing assets:
- Confirm that the in-scope assets for appraisal exist and record any missing or additional assets;

- Where in-scope assets for appraisal do not exist or made redundant, record these systems and inform the relevant stakeholder in-charge of the asset, and to the GEMS team; and
- If additional assets not captured in GEMS are identified then asset attributes are to be captured, as per the EA Data Model, and EA is to be conducted on the asset. Asset attributes are to be captured by determining the asset class, looking up attributes required for the asset class (i.e. GEMS descriptors, e.g. size, length, finish, other), capturing the relevant attributes, then conducting EA on the asset. The assets are to be added to GEMS, including the captured attributes and appraisal outputs.

3.3 Reporting and Upload to GEMS

3.3.1 Enter attributes and upload to GEMS (as per Attributes list in Section 4)

- Information management is key to the success of the EA function as the Estate Data is pivotal to the management and maintenance of the Defence Estate; and
- The assessor is to manage EA information in accordance with the requirements of the EA Policy and ensure that it is collated in a format suitable to upload into GEMS. Appraisal Attributes as per the EA Data Model in Section 4 are to be presented in a format ready for upload to GEMS.

4 Attributes and Measuring Points

4.1 Attributes and measuring points for collection

- 4.1.1 The attributes and measuring points described in Table 3 must be collected for each Condition Assessment activity for upload into GEMS. The ERIM contains a detailed definition of the attributes and measuring points.
- 4.1.2 Where appraisal of an attribute returns a null result, for example, where no remedial works are required, positive confirmation of the null result is required to be documented in GEMS.
- 4.1.3 GEMS does not currently allow for the collection of attributes related to *Remaining Life* assessment, denoted with an asterisk (*) in Table 3 below, and GEMS configuration changes will be required in consultation with Defence. In the interim, the EMOS contractors are requested to capture the relevant information related to this attribute and retain them in their respective asset management systems to enable a potential future migration to GEMS.

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Table 3 Requisite attributes and measuring points to be collected as part of Condition Assessments

Outputs	Attributes and measuring points	Description	GEMS Data Format	GEMS Data Values
Asset Assessment	<ul style="list-style-type: none"> ▪ Condition – Assessed 	<ul style="list-style-type: none"> ▪ Assessed Condition - the standard of condition at which the asset is performing 	<ul style="list-style-type: none"> ▪ List 	<ul style="list-style-type: none"> ▪ 1-5 scale, as described in Appendix 7 to <i>1.1 EA Plan</i>. At a high level, the ratings are: <ul style="list-style-type: none"> ○ 1 – Maximum. As new, no signs of wear and tear. ○ 2 – High. Minor signs of deterioration that do not detract from overall appearance or impact on integrity are acceptable. ○ 3 – Standard. Some deterioration is acceptable with non-critical impacts on integrity. ○ 4 – Minimum. Visual appearance unimportant, significant signs of deterioration acceptable. ▪ 5 – Mothballed. The appearance is unimportant, the external fabric must only be secure and safe.
	<ul style="list-style-type: none"> ▪ Functionality – Assessed 	<ul style="list-style-type: none"> ▪ Assessed Functionality - the standard of the condition at which the asset is performing 	<ul style="list-style-type: none"> ▪ List 	<ul style="list-style-type: none"> ▪ 1-5 scale, as described in Appendix 7 to <i>1.1 EA Plan</i>. At a high level, the ratings are: <ul style="list-style-type: none"> ○ 1 – Maximum: Must be fully functional at all times. ○ 2 – High: Mostly fully functional, minor functional issues are acceptable. ○ 3 – Standard: Some functional issues acceptable.

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				<ul style="list-style-type: none"> ○ 4 – Minimum: Can be made functional if required. ▪ 5 – Mothball: Functionality not required.
	<ul style="list-style-type: none"> ▪ Remaining Life – Assessed* 	<ul style="list-style-type: none"> ▪ Assessment of the remaining functional life (i.e. not design life) to inform refresh or replacement requirements 	<ul style="list-style-type: none"> ▪ Numeric 	<ul style="list-style-type: none"> ▪ Numeric
	<ul style="list-style-type: none"> ▪ Remaining Life – Date assessed* 	<ul style="list-style-type: none"> ▪ Date of remaining life assessment to ensure the field is updated correctly over time 	<ul style="list-style-type: none"> ▪ Date 	<ul style="list-style-type: none"> ▪ Date

* New attributes – not currently available on GEMS

5 Stakeholders

5.1 Stakeholders and management requirements

5.1.1 The key stakeholder groups for Condition Assessments, and the importance of these stakeholders, to effectively manage the appraisal delivery program is outlined below.

Stakeholder	Interest
Directorate Estate Planning & Upkeep (DEPU)	Client and sponsor of EA.
EMOS contractors (Spotless, BGIS and Broadspectrum)	Largely responsible for Scheduled EA and Condition Assessment and provision of EA data to enable wider estate management activities. EA data may also be used by the EMOS contractors themselves to enable preventative maintenance activities.
Base Managers (BMs), E&IG Zone Estate Management and Planning (EM&P)	BMs and EM&P team will provide site-specific knowledge at each location and may attend the appraisal entry and exit briefs. They are also actively engaged by the EMOS contractors as part of the Desktop reviews during which a number of attributes are determined such as fitness for purpose and criticality ratings.
Head of Resident Units (HRUs)	The HRUs are required to provide access to individual buildings, attend site visits in their respective areas and highlight any building issues that they know. They will also be invited to attend entry and exit briefs. HRUs are also actively engaged by the EMOS contractors as part of the Desktop reviews during which attributes such as fitness for purpose and criticality ratings are determined.
Senior Australian Defence Force Officer (SADFO)	SADFO is the ADF authority for Base Orders, Instructions and Plans, and is primarily responsible for the delivery of base capability and its compliance.