

Revision Record

Issue	Date	Author(s)	Brief description of change
1.0	March 2009	Wra team	Initial versions
2.0	June 2015	Wra team	Update in preparation for new audits (also for unguided satellites), based on changes identified in Impact analyse and previous audit plans/report
3.0	January 2019	Wra team	Optimisation of the audit process, including merge of format audit plan into format audit report.

Contents

Revision Record	1
Abbreviations	4
Glossary	5
1 Introduction	6
1.1 Summary previous audit findings	6
1.2 Confidentiality statement	7
1.3 Context description	7
1.4 How to use this document	7
1.5 Distribution list	8
2 Auditing and related processes	9
2.1 Definition of context and scope	9
2.2 Obtaining information	9
2.3 Set up of the audit criteria	9
2.4 Desk research of documentation	10
2.5 Alignment with auditee and audit client	10
2.6 Audit interviews	10
2.7 Preparing audit conclusions	10
2.8 Audit reporting	11
2.9 Presentation of audit results	11
3 Audit objectives	12
3.1 General	12
3.2 Engineering	12
3.3 Insurance	13
3.4 Finance	13
4 Audit criteria	14
4.1 Engineering	14
4.2 Insurance	14
4.3 Finance	14
5 Audit scope	16
5.1 Engineering	16
5.1.1 Documents to be reviewed	16
5.1.2 Organisational and functional units	16
5.1.3 Processes	17
5.2 Insurance	17
5.3 Finance	18
5.3.1 Focus areas	18

5.3.2	Planned audit activities	19
5.3.3	Financial Ratios	20
5.3.4	Business Risks	20
5.3.5	Control Environment	20
6	Audit activities	21
6.1	Planned dates and places	21
6.2	Detailed planning of the on-site audit activities	22
6.3	Overview performed audit activities	22
7	Roles and responsibilities of the audit team	23
8	Identification of the auditee's representatives for the audit	24
9	Logistic arrangements	25
9.1	Language	25
9.2	Wra portal	25
9.3	Other	25
10	Audit findings	26
10.1	Findings format	26
10.2	Findings summary	27
10.3	Engineering	27
10.4	Insurance	28
10.5	Financial	28
10.6	General	28
11	Audit topics not covered	30
11.1	Engineering	30
11.2	Insurance	30
11.3	Financial	30
12	Issues encountered	31
13	Conclusions and recommendations	32
13.1	Conclusions	32
13.2	Recommendations	33
14	Relevant documents and information	34
14.1	Applicable Documents	34
14.2	Reference Documents	34
14.3	Audit References	34
14.3.1	Legal documents	34
14.3.2	Norms and standards	35
14.4	Audit Evidence	36

Abbreviations

ACRONYM	DESCRIPTION
a.s.a.p.	as soon as possible
COSO	Committee of Sponsoring Organizations framework
DRD	Document Requirements Description
ECSS	European Cooperation for Space Standardisation
IADC	Inter-Agency Space Debris Coordination committee
ISO	International Organisation for Standardisation
IARU	International Amateur Radio Union
ITU	International Telecommunication Union
TBC	To Be Confirmed
TBD	To Be Detailed
TBW	To Be Written
Wra	Wet ruimtevaartactiviteiten (Dutch: Space Activities Act)

Glossary

All terms defined in the glossary are formatted in *italic* throughout this document.

Term	Explanation
Audit	An <i>audit</i> is a systematic, independent and documented process for obtaining <i>audit evidence</i> and evaluating it objectively to determine the extent to which the <i>audit criteria</i> are fulfilled.
Audit client	The organisation or person requesting an <i>audit</i> . The <i>audit client</i> may be the <i>auditee</i> or any other organisation, which has the regulatory or contractual right to request an <i>audit</i> .
Audit conclusion	The outcome of an <i>audit</i> , provided by the <i>audit team</i> after consideration of the <i>audit objectives</i> and all <i>audit findings</i> .
Audit criteria	A set of policies, procedures or requirements. <i>Audit criteria</i> are used as a reference against which <i>audit evidence</i> is compared.
Audit evidence	Records, statements of fact or other information, which are relevant to the <i>audit criteria</i> and verifiable. <i>Audit evidence</i> may be qualitative or quantitative.
Audit findings	The results of the evaluation of the collected <i>audit evidence</i> against <i>audit criteria</i> . <i>Audit findings</i> can indicate either conformity or nonconformity with <i>audit criteria</i> or opportunities for improvement.
Audit plan	The description of the activities and arrangements for an <i>audit</i> .
Audit references	Documents containing audit criteria.
Audit report	An <i>audit report</i> is a signed, written document, which presents the purpose, scope, and results of an <i>audit</i> .
Audit scope	Extent and boundaries of an <i>audit</i> . The <i>audit scope</i> generally includes a description of the physical locations, organisational units, activities and processes, as well as the time period covered.
Audit team	One or more <i>auditors</i> conducting an <i>audit</i> , supported if needed by <i>technical experts</i> . One <i>auditor</i> of the <i>audit team</i> is appointed as the <i>audit team leader</i> .
Audit team leader	A person responsible for the co-ordination of the <i>audit</i> . He is the point of contact during the <i>audit</i> .
Audit topic	Subject to be covered in the audit process.
Auditee	Entity (person or organisation) being audited.
Auditing organisation	Organisation that is responsible for conducting an <i>audit</i> .
Auditor	A person with the <i>competence</i> to conduct an <i>audit</i> .
Competence	Demonstrated personal attributes and demonstrated ability to apply knowledge and skills.
Flight Operation	Translation “Bedienen van de vlucht”. [Wra article 1(c)]
Guidance	Translation “Geleiden van ruimtevoorwerpen in de ruimte”. [Wra article 1(c)]
Initial audit	<i>Audit</i> conducted after receipt of the request for a licence. Translation “aanvangs-audit”.
Launch	Translation “Lanceren”. [Wra article 1(c)]
Limited assurance	A level of assurance realised by performing an audit with a reduced (limited) scope and level of audit activities.
Reasonable assurance	A level of assurance realised by performing an audit with a regular (high) scope and level of audit activities.
Supervision audit	Translation “toezicht-audit”. <i>Audit</i> conducted in the scope of continuous supervision. [Wra article 13(1), OST article VI]
Technical expert	A person who provides specific knowledge or expertise to the <i>audit team</i> . Specific knowledge or expertise is that which relates to the organisation, the process or activity to be audited, or language or culture. A <i>technical expert</i> does not act as an <i>auditor</i> in the <i>audit team</i> .

1 Introduction

This document provides a format of an *audit report* for initial audits in the framework of the Wet ruimtevaartactiviteiten – Wra [AR-01]. For an actual *audit report* the parts formatted in blue (like this section) are guidelines to be followed. Words or parts of sentences to be filled in are also formatted in blue and placed between pointed brackets.

The audit report based on this unclassified document is company confidential and shall not be disclosed. This classification needs to be reflected in the pertinent document (headers etc.)

The Wra came into force on January 1st 2008. This Act regulates space activities falling under Dutch jurisdiction, and is extended by Order in Council to unguided satellites per 1 July 2015. The Dutch Authority for Digital Infrastructure (hereafter RDI) is the licence granting and enforcement authority [RD-01].

<entity> has submitted a request for a licence for <activities> [AE-01] on <date> and has been granted a licence for <activities> in <month year> [AR-04], based on the initial audit. As licence holder, <entity> is subject to periodic review of its space activities. On <date>, RDI announced a supervisory audit of <entity>.

RDI has requested the audit team to perform the audit. The entities delegated with planning and performing the audit are:

- <entity>
- <entity>
- ...

The audit focuses on the following subjects:

- open and non-conform audit topics from previous audit (if any);
- technical matters related especially to end of life, decommissioning and environmental issues;
- the <entity>'s operational capabilities and technical risk management;
- the sufficiency of protection in case of liability for its space activities;
- insurance protection for the space activities.

This document is the combined *audit plan* and *audit report* for the pertinent *audit*, with RDI as *audit client*, <entity> as *auditee*, and performed by the consortium as *audit team*.

1.1 Summary previous audit findings

The most recent audit was held on <date>. This section provides a brief overview of the findings from that audit in order to provide the proper background for the current audit being discussed in this document. Table 1 shows the audit finding from each topic of the previous audit.

Table 1 Findings summary

Audit finding ID	Topic	Type
WRA-AF-<entity abbreviation>-<TBW>	<topic>	<Conformity/Non-Conformity/TBD>

1.2 Confidentiality statement

All information, presented by the *auditee*, in written form, or by personal communication and information obtained during visits to the audit site will only be used for auditing purposes and will be handled as strictly confidential. A secure audit portal will be used for transfer of information, see section 9.2 for more details. In general, no classified documents will be attached to e-mails, but links to these documents on the audit portal shall be used.

This report will only be distributed to the parties described in section 1.4.

1.3 Context description

On <date>, <entity> has <requested/obtained> a Wra licence to <describe space activities>, which is subject to this audit. <entity> is <describe entity structure (parental entity involved?)>. <entity> performs <describe entity space activities (e.g. activities partly performed from territory of another country (flight operations))>.

This space can be used to provide further background information of the entity.

More detailed information about the <entity> space activities related to this audit can be found in the “<entity> space activities information for Wet ruimtevaartactiviteiten licence” document [AE-02].

More general information can be found on the <entity> websites:

- <entity website URL>

1.4 How to use this document

Due to the combination of the *audit plan* and the *audit report* into a single document, it is not possible to release the *audit plan* as a formal document before the actual audit. Instead, draft versions of this document will provide to the *auditee*, including:

- *audit plan*: until (and including) section 10.1;
- *audit findings*: chapters 10 and 14 only;
- *audit report*: complete document.

The draft versions will be provided in pdf format, not showing any changes or (internal) comments. A watermark could be used to identify the status/date of the document. The version/date is also added to the page header.

In the Wra portal, any specific version provided for review will be identified as major SharePoint version.

Feedback of the auditee (if any) can be provided in text (by mail) or as review comment in the pdf document.

Text shown in **yellow highlight** format is likely to be updated in a later (draft) version of this document.

1.5 Distribution list

The following persons will be provided with an (electronic) copy of the document.

Audit client:

RDI

- <name>
- <name>
- <name>

Auditee:

<entity name>

- <name>
- <name>

Auditing organisations:

<entity name>

- <name>

<entity name>

- <name>

<entity name>

- <name>

<entity/name> is responsible for the distribution to RDI / <name> as *audit client*, and to the auditing organisations.

<name> is responsible for the distribution to the *auditee* and for internal distribution of RDI.

2 Auditing and related processes

This section describes the sequence of steps foreseen for this audit.

2.1 Definition of context and scope

The audit will start with an announcement provided by the audit client to the auditee, which will define the (initial) context and scope of the audit.

For an *initial audit*, this means that the licence request and related documents have been accepted by the *audit client* for further processing.

A *supervision audit* will be initiated as a periodic audit as required for continuous supervision by UN space treaties [AR-06] and ITU Radio Regulations and Recommendations [AR-07] and is implemented in the Wra. A *supervision audit* will also be initiated because of specific circumstances that require additional information and a potential re-assessment of the licence or licence conditions.

Additional information about the *auditee* will be obtained to define the final context and scope of the *audit*.

2.2 Obtaining information

In order to obtain an overall picture, contact with the *auditee* is established. An appointment is to be made for an initial meeting/visit between the *audit client*, *auditee* and *audit team*. On the basis of an agreed agenda, the *auditee's* representatives will provide a presentation in the scope of the audit. Questions are posed by the *audit team* in order to complement the overall picture.

If needed, *auditee* will be asked to provide additional documentation/information.

2.3 Set up of the audit criteria

Audit reference documents and *audit criteria* will be determined, and identified in section 14.3. They include the Wra [AR-01], the explanatory note of the Wra [AR-05], the UN space treaties [AR-06], the ISO Space Debris requirements [AR-11], as well as other norms and standards.

For all fields of expertise, the auditee's information is checked for correctness, completeness and interpretation, in order to identify other documents that can be used as an *audit reference*. If necessary, additional reference documents are requested from the *auditee* (via the *audit client*).

Checklists with subjects to be covered in the *audit process* (*audit topics*) will be set-up and completed. The *audit topics* in combination with the *audit reference* form the *audit criteria* to be covered in the audit process.

2.4 Desk research of documentation

The documentation is studied by the *audit team* in order to determine:

- whether the *audit criteria* are met;
- to identify the organisational and functional units and processes to be audited;
- to update the list of audit topics.

If possible, *audit findings* are recorded based on the documents provided.

In parallel with the process of studying the documentation, alignment with *auditee* and *audit client* (section 2.5) is performed and documented in the *audit plan*.

2.5 Alignment with auditee and audit client

The following subjects are aligned with the *auditee* and the *audit client*, and documented in the *audit plan*:

- dates and places, addressed in section 6.1;
- detailed planning of the on-site audit activities, addressed in section 6.2;
- roles and responsibilities, addressed in section 7;
- identification of the auditee's representatives for the audit, addressed in section 8.

2.6 Audit interviews

It is common practice to precede the audit interviews with a plenary opening session. This session is followed by a number of possibly parallel sessions consisting of interviews and visits of selected organisational and functional units. In order to obtain reliable *audit evidence*, the same *audit topics* are discussed with different persons and/or looked up in documents.

During these interviews and visits *audit findings* are recorded and discussed with the *auditee* in order to verify the correctness of the *audit finding*. If no agreement can be reached, the positions of *auditor* and *auditee* are recorded. If possible, the discrepancy is resolved later on, e.g. by additional interviews or by research of documentation.

2.7 Preparing audit conclusions

When desk research, interviews and visits are finished, the *audit team* will discuss the findings with the purpose to:

- review positive and negative findings;
- review criticality of the individual findings;
- detect patterns or areas with negative findings. This can lead to detection of critical groups of findings;
- formulate the audit conclusions (including advice on the licence).

The *audit client* is involved in this process.

The final *audit conclusions* are communicated to the *auditee* by the *audit client*.

2.8 Audit reporting

The *audit report* will be based on the *audit evidence* collected. It will contain:

- a confidentiality statement, given in section 1.2;
- a distribution list, displayed in section 1.4;
- *audit objectives*, addressed in chapter 3;
- *audit criteria*, given in chapter 4;
- *audit scope*, particularly identification of the organisational and functional units or processes audited and the time period covered. This is covered in chapter 5;
- *audit activities*, shown in chapter 6;
- identification of *audit team*, provided in chapter 7;
- identification of *auditee's* representatives, provided in chapter 8;
- an overview of logistic arrangements is described in chapter 9;
- *audit findings*, provided in chapter 10;
- *audit topics not covered*, elaborated on in chapter 11;
- *issues encountered*, detailed in chapter 12;
- *audit conclusions and recommendations* (including advice on licence), detailed in chapter 13;
- confirmation that the *audit objectives* have been accomplished within the *audit scope* in accordance with the *audit plan*. This can be found chapter 13;
- a list of relevant documents and information, including audit evidence, is provided in chapter 14.

The *audit report* is reviewed and approved by the *audit client*.

The *audit report* is the major input for the decision to grant or continue the licence, and under which conditions.

2.9 Presentation of audit results

If needed, the *audit results* are presented to the *auditee*. The meeting will be attended by, amongst others, the *audit client*, *auditee* and the *auditors*.

During the meeting, the *audit client* will present the *audit report* to the *auditee*. Follow-up activities will be defined, including initial planning of the next *audit*.

3 Audit objectives

This section provides information on the audit objectives, taking the characteristics of entity and activities in a broader sense into account. The following subjects are to be covered:

- What kind of entity is requesting the permit (commercial, scientific)?
- What kind of activities are performed?
- What types of space objects (satellites, launchers, etc...) are involved?
- What kinds of orbits are used?

Auditee has <requested/obtained> a licence for <detailed activities> on <date>. The licence <will be/is> further limited to <activities> within the framework of the Wra. From that perspective, the auditing process is mainly limited to investigations relevant for the above-mentioned activities. Nevertheless, it is necessary to also verify documents related to the other phases of the activity (<'launch' and/or 'flight operation'>, cf. the Wra), in order to correctly assess the potential liability exposure of <entity>, and, thus, of the Dutch Government.

As such, apart from the audit with respect to the current licence, the *audit team* will also require to be given insight into activities that are currently being undertaken for future space missions, including those that do not fall under the current licence (if any).

3.1 General

Objective of this *audit* is to provide the *audit client* a clear understanding of the space objects falling under the Wra licence (incl. registration data), the measures taken and assurances provided by the *auditee* in the areas of engineering, finance and insurance as well as an assessment of the scope and effectiveness of the pertinent measures and assurances. This includes open and non-conform audit topics from previous audit (if any). More details are defined in the next sections.

3.2 Engineering

The engineering part of the *audit* must provide clarity on questions of risks related to space activities – including those defined in the Document Requirements Description for Wra licence request and audit information [RD-03] – in the areas of:

- safety of persons and goods;
- protection of the environment in outer space.

The focus during the engineering part of this *audit* will be on technical matters related especially to <list areas, e.g. end of life, decommissioning and environmental issues>.

The *audit* must make clear if the *auditee*:

- Provides acceptable safety of persons and goods.
- Provides acceptable protection the environment in outer space.
- <other focus areas>

3.3 Insurance

The insurance part of the *audit* must provide clarity to ascertain that the *auditee*:

- is sufficiently protected in case of liability for its space activities, specifically its ‘launch’, ‘flight operation’, ‘guidance’ or ‘operations for unguided space objects’ activities as defined under the Wra;
- has adequate space risk management and insurance protection in place such that its financial base is reasonably protected.

The *audit* must make clear if the *auditee*:

- has complied with national and international applicable regulations.
- has identified and analysed all potential risks it – and thus the Dutch Government – could be exposed to;
- has adequately covered these risks by insurance or by any other means.

It must be ascertained whether any risks that the *auditee* is exposed to could also entail risks for the Dutch Government, specifically in view of its obligations under the UN space treaties. Even though the *auditee* is not bound by the Treaties, the *audit client* must perform this audit to exclude potential (third party) liability claims under the Treaties to the Dutch Government.

3.4 Finance

The *audit* in terms of finance must provide clarity on the question whether *auditee* has a sufficiently solid financial base, such that it is capable to withstand unfavourable developments with negative financial consequences, without negligence of its activities and obligations.

The *audit* must make clear if the *auditee*:

- is considered to have an acceptable profitable, solvable and liquidity position;
- performs the business activities to such an extent that most likely the continuity of acceptable profitable, solvable and liquidity position is ensured;
- has organized and executes a solid control environment;
- has identified and analysed the most important business risks and has installed measures to minimize risk exposure.

4 Audit criteria

This section provides information about the *audit references* (documents), in which *audit criteria* are defined or can be identified. Determination of *audit reference* documents and *audit criteria* will be done in close co-operation with the *audit client*. This can also be based on information provided by the *auditee*.

Pending the consultation with the *auditee*, the preliminary *audit criteria* and *references* are described in the next sections of this chapter.

4.1 Engineering

A number of different standards and standardisation systems exists that could be used as baseline for the development and operations of space systems, including those defined by the International Organisation for Standardisation (ISO) [AR-11], the European Cooperation for Space Standardization (ECSS) [AR-12] and additional (entity) internal standards.

Drafting of a unique set of standards to monitor the (planned) activities for all space systems (both space and ground segments) and for all possible situations does not appear feasible.

This implies that *audit references* and *audit criteria* are to be determined specially for this specific case.

The major engineering *audit reference* documents include:

- Regulations (incl. the Wra [AR-01] and specific agreements with regulating bodies (RDI);
- UN space treaties [AR-06];
- ITU Radio Regulations [AR-07];
- ITU-R Recommendations [AR-08];
- IADC Space Debris Mitigation Guidelines [AR-10];
- Applicable/relevant norms and standards (e.g. ISO, ECSS, entity specific);
- Documents provided by the manufacturer of the space system, containing information relevant to the engineering audit objectives defined in section 3.2.

4.2 Insurance

The major *audit reference* documents and *audit criteria* relevant for the insurance *audit* are the Wra [AR-01], its explanatory note [AR-05] and the Unguided Satellites Decree [AR-04]. In addition, the UN space treaties [AR-06], even though the *auditee* could be a private entity, also serve as reference documents since the Dutch Government is responsible under Art. VI Outer Space Treaty for activities by its private entities.

4.3 Finance

Audit references for the financial aspects are mainly related to legislation and other accounting principles used for the preparation of financial statements. Relevant guidance in this respect is (amongst others):

- Burgerlijk Wetboek Boek 2 Titel 9 (Part 9 of Book 2 of the Netherlands Civil Code Dutch accounting law) [AR-09];

- Richtlijnen voor de jaarverslaggeving (Dutch accounting standards) [AR-13];
- International Financial Reporting Standards – IFRS (International accounting standards) [AR-14].

Application of the law and accounting standards is directly related to the annual financial statements of the entity. These statements are audited by external *auditors*.

5 Audit scope

The *audit scope* is determined by the *audit client* in cooperation with the *auditing organisations*. In general, the *audit* will consist of reviewing various documents to be provided by the *auditee* or the *audit client*¹, followed by one or more on-site *audits*.

The organisational and functional units and processes to be audited are described separately for the various fields of expertise.

5.1 Engineering

5.1.1 Documents to be reviewed

Documents which can or will be reviewed as part of the engineering audit include:

- auditee's input to the "Document Requirements Description for Wra licence request and audit information" [RD-03], as defined or referenced in the "<entity> space activities information for Wra licence" Document [AE-02];
- a Space Debris Mitigation Plan (SDMP), which – in line with the ISO 24113:2011 standard [AR-11] – shall include:
 - the applicable space debris mitigation requirements;
 - the verification and validation means to assess compliance with the applicable space debris mitigation requirements;
 - a compliance matrix;
 - justification for non-compliance (if any).
- security related documents;
- operations related documents (incl. contingency operations);
- product/quality assurance related documents.
- <more TBD>

5.1.2 Organisational and functional units

Organisational and functional units which can or will be reviewed as part of the engineering audit include:

- engineering, responsible for definition, design, development and acceptance of the system to be operated;
- product assurance/ quality assurance, responsible for the implementation of the quality assurance element of the product/project and certain other specialist activities;
- operations, responsible for exercising and supporting the system in order to achieve the customer's objectives during the operational phases;
- management, responsible for risk management and reporting of incidents to RDI;
- security / ground segment.
- <more TBD>

¹ The application for a licence should include evidence regarding the proven knowledge and experience of the applicant in the area of space activities.

5.1.3 Processes

Processes which can or will be reviewed as part of the engineering audit include:

- definition, design and development;
- verification, validation and test;
- operations (ground segment, training, nominal/contingency operations, end-of-life operations, security, etc.);
- product assurance/ quality assurance.
- [<more TBD>](#)

5.2 Insurance

The scope of the *audit* in terms of insurance will mainly focus on those activities for which a licence has been requested. However, for reasons explained in chapter 4, it is essential to also verify other stages of activities by the *auditee*, such as the purchase or the selling of space objects (satellites, launchers, etc...) or space services, and related contracts, in order to correctly ascertain the potential liability exposure of the *auditee* under these contracts.

The audit will include:

- review of relevant publicly-available and confidential information;
- verification of key elements of *auditee's* reporting, including material issues highlighted and omitted;
- review of any other information provided by the *auditee* or *audit client*;
- site visits (if necessary, depending on availability of documentation);
- Q&A and follow-up investigation; meetings with the *auditee*, its advisers and management;
- discussion of *audit* findings with the *audit client* and its advisers;
- preparation of interim and final *audit reports*, with advance notification of key issues;
- analysis of *audit* issues to be reflected in the licence delivery process or the granted licence process documents drafting.

Topics to be covered will include the following elements:

- assessment of and comment on the principal space insurable risks and exposures to which *auditee* may be exposed including the exposure to past, current and potential liabilities;
- review and assessment of *auditee's* current space insurance and risk management arrangements, covering different phases (Pre-Launch, Launch & Early Orbit, In Orbit, De Orbit and/or Re-entry), different insurance protections (Loss of assets and loss of revenues, Liabilities: third party and product liability);
- review of *auditee's* space risk management approach and awareness and risk transfer mechanisms;
- comment on details of space insurance risk management procedures in place;
- review of past, current and potential space insurance losses and claims and of their impact on space insurance arrangements, where relevant;
- benchmarking of *auditee's* space insurance and risk management arrangements with regard to risks to third parties and to the Dutch Government, against space insurance practices of organisations with a similar risk profile;
- any material findings which might impact the decision to deliver or to withdraw the licence.

In order to execute the audit, access to the following information is required:

- indication of the contractual arrangements on the sales contracts that could have an impact on the risks to the third parties and to the Dutch Government under the Outer Space Treaty and the Liability Convention. Copies of the clauses of the main sales contracts that potentially limit the liability to the Dutch Government;
- copies of the space objects (satellites, launchers, etc...) health reports and other information provided to space insurers for all space objects (satellites, launchers, etc...) that suffered anomalies at launch attempts and/or at launch and/or in orbit that could increase risk of damage to third parties (such as risk of damage on the ground or in the atmosphere or risk of collision in orbit);
- complete list of the complaints received from third parties due to the space activities since the creation of the *auditee*, what was the amount claimed, how much was finally settled and how much was covered by the space third party liability insurance policy;
- space objects (satellites, launchers, etc...) anomalies and claims at launch attempts and/or at launch and/or in orbit since the creation of the *auditee* that have had a significant impact on the financial security of the *auditee* (significant loss of asset and/or loss of revenue that were not or insufficiently indemnified by insurance), including pending and potential cases);
- extracts of risk mapping survey or key risk factors report that relate to the risks to third parties and to the Dutch Government under the Outer Space Treaty and the Liability Convention;
- access to financial covenants which might include requirements related to space insurance.

5.3 Finance

The scope of the *audit* in terms of finance is related to the general objectives of the licence.

In this instance the *audit* is predominantly focused on the appraisal of the continuity and financial solidity of the organisation itself. Preferably, the review will be based as much as possible on financial data made available by the *auditee*.

The *audit* in terms of finance does not include any verification activities regarding the content of financial data to be investigated, which should have been audited and approved. During the *audit* there will not be undertaken any additional financial-audit related reviews of the (consolidated) financial statements. The auditors will neither conduct any detail *audit activities*.

The *audit* will strictly consider the aspects, which are relevant for the financial assessment of this audit.

5.3.1 Focus areas

The main aspects of focus in the *audit* in terms of finance will be on:

- financial indicators;
- business risks;
- control environment.

In order to get to a fair and complete appraisal it is necessary to take the interaction of these business aspects into account where relevant.

- Financial indicators: Financial indicators of the relevant *auditee's* business activities as well as the (consolidated) financial situation of any foreign parental entity/organisation are taken into account. The reason is that although the licence is only applicable for certain 'Dutch' activities, and therefore considers the

financial situation at local Dutch level, it is important to state that the consolidated entity/organisation is financially healthy as well;

- **Business Risks:** Within the organisation there may be specific business risks (e.g. market developments, technical innovation, strategic alliances, legislation) present which may have an impact on the financial position in the short or longer term. If relevant the audit will conduct a research on the possible impact of business risks at the financial solidity of the organisational activities covered by the licence;
- **Control Environment:** The control environment throughout the entity is considered to be top down. The status of the control environment has to indicate whether the management is in control of its activities.

5.3.2 Planned audit activities

The planned activities will mainly focus on the following:

- a financial (ratio) analysis based on relevant indicators. An overview of these indicators is stated in the subsequent paragraph;
- an appraisal of recent (consolidated) financial statements, specifically focussing on the relevant business' activities in The Netherlands relevant for the licence;
- an appraisal of the (consolidated) future-oriented business information (e.g. budgets and forecasts) in order to determine the financial sustainability of the *auditee* in the upcoming years;
- an appraisal of the 'control environment' of the *auditee*, amongst others based on management letters of the external auditor and other internal reports.

In table 2, an overview is presented of the required and desired information in order to execute the earlier described activities.

Table 2 Overview of requested information

Information request	Must have	Nice to have
(consolidated) Annual accounts of the 'applicant' last fiscal year (incl. auditor's statement)	X	
(consolidated) Financial budget/forecasts for current and next two fiscal years	X	
(consolidated) Cash flow statement for last fiscal year	X	
Financial risk analysis of space activities	X	
Budget of space activities under the Wra-licence (e.g. 'business case')		X
Interim financial data, including management reports		X
Financial arrangements bank loans, etc.		X
Legal procedures & cases pending		X
Prospective market & client information		X
Off balance sheet arrangements & liabilities		X
Management letter		X

Documents 1 through 4 will be analysed and reviewed prior to a planned on-site visit. Other documents of which some are confidential will be inspected only during an on-site visit. In addition to the documents reviews, we will conduct one or several interviews with the financial representatives of the *auditee*.

If, based on the preliminary outcomes of the review and the management letters, it is considered to be necessary, it is possible to arrange interviews with the external auditors of the *auditee*. Considering the nature of the assignment it is neither necessary to plan this 'collegial interview' nor to inform them about this.

5.3.3 Financial Ratios

For the analysis the following financial figures and/or ratios are relevant:

Income Statement indicators:

- revenue;
- revenue specific to business activities covered by the licence;
- operating Profit;
- net profit;
- net income margin;
- net operating cash flow;
- EBITDA (earnings before interest, taxes, depreciation, and amortization).

Balance sheet indicators:

- Net debt;
- Debt Ratio (Net Debt/ Total Equity);
- Current Ratio (Current assets/ Current liabilities);
- Quick Ratio (Current assets-inventory)/Current Liabilities.

5.3.4 Business Risks

The *audit* focuses on the business risks incurred by the following events:

- business risks incurred by market developments in the *auditee's* business;
- business risks incurred by the (current) development of (world) economy and financial markets;
- the importance of the *auditee's* business activities for any foreign parental entity/organisation and with that the willingness to transfer business risks internally between the parental entity and the *auditee*.

5.3.5 Control Environment

The *audit* focuses on the following aspects of the control environment:

- specific type of controls available with respect to the relevant *auditee's* business activities;
- management control and governance;
- risk management.

6 Audit activities

6.1 Planned dates and places

The following table lists the planned dates and places of the relevant activities for preparation and actual conduct of the (on-site) *audit*. Any history of activities is maintained as reference.

Detailed information about the on-site audits is defined in section 6.2.

Table 3 Overview of audit planning

Start date	End date	Activity	Location
<TBW>	<TBW>	Formal announcement of audit to <i>auditee</i>	Mail
<TBW>	<TBW>	SAID delivery by <i>auditee</i>	Mail / Portal
<TBW>	<TBW>	Delivery initial comment on SAID	Mail / Portal
<TBW>	<TBW>	SAID update by <i>auditee</i>	Mail / Portal
<TBW>	<TBW>	Alignment of (draft) <i>audit plan</i> with <i>audit client</i> , <i>auditee</i> and <i>auditee</i>	Telecon / Mail / Portal
<TBW>	<TBW>	Additional information exchange (if any)	Mail / Portal
<TBW>	<TBW>	(End of) Desk Research	Audit team
<TBW>	<TBW>	Audit visit/interviews	Auditee / Telecon
<TBW>	<TBW>	Definition/review/agreement on <i>audit findings</i> by <i>audit team</i> and <i>auditee</i>	Mail / Telecon / Portal
<TBW>	<TBW>	End of field work	-
<TBW>	<TBW>	Delivery/review of draft <i>audit report</i> to/by <i>audit client</i>	Portal / Telecon
<TBW>	<TBW>	Delivery of final <i>audit report</i> to <i>audit client</i>	Portal
<TBW>	<TBW>	Provision of <i>audit report</i> and results by <i>audit client</i> to <i>auditee</i>	Letter / Mail
<TBW>	<TBW>	Post-audit meeting	Auditee

6.2 Detailed planning of the on-site audit activities

The following on-site audit activities are planned, including meeting with the *auditee's* management and *audit team* meetings.

Table 4 On-site audit details

Date / Time	<TBW>
Location(s)	<TBW>
Auditor(s)	<TBW>
Auditee(s)	<TBW>
Department	<TBW>
Function(s) / role(s)	<TBW>
Subject(s)	<TBW>
Speculator(s)	<TBW, if any – names to be defined by auditee>

6.3 Overview performed audit activities

The following table lists the dates and places of the (on-site) *audit* activities, that have taken place thus far.

Table 5 Audit activities

Date(s)	Activity	Location	Reference
<TBW>	<TBW>	<TBW>	<TBW>

7 Roles and responsibilities of the audit team

The audit team – including roles, organisations and responsibilities – is listed in the table below.

Table 6 Roles and responsibilities of members of the audit team

Name E-mail Phone Number(s) (Office / Mobile)	Org.	G	E	F	I	L	P	Role Responsibility
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E	F	I	L	P	<i>Observer</i> Audit client point of contact for this audit
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E	F	I	L	P	<i>Observer</i> Audit client
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E	F	I	L	P	<i>Observer</i> Audit client
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E				P	<i>Auditor</i> Auditing related to engineering matters
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E				P	<i>Technical expert</i> Providing additional knowledge or expertise to the <i>audit team</i> related to <u>engineering</u> matters
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E	F	I	L	P	<i>Audit team leader</i> Co-ordination of the <i>audit</i>
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G		F			P	<i>Auditor</i> Auditing related to financial matters
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G			I	L	P	<i>Auditor</i> Auditing related to insurance/legal matters
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E	F	I	L	P	<i>Technical expert</i> Providing additional knowledge or expertise to the <i>audit team</i> related to <u>financial</u> matters
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G			I		P	<i>Technical expert</i> Providing additional knowledge or expertise to the <i>audit team</i> related to <u>insurance</u> matters
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678	...	G	E	F	I	L	P	Example only This document

G = General, E = Engineering, F = Financial, I = Insurance, L = Legal, P = Portal access

8 Identification of the auditee's representatives for the audit

The identified representatives of the *auditee* are indicated in the next table.

Table 7 Auditee's representatives

Name E-mail Phone Number(s) (Office / Mobile)	Org.	G	E	F	I	L	P	Function(s) / Responsibility Location(s)
FirstName LastName FirstName.LastName@entity.org O: +31(0)12 345 6789 / M: +31(0)6 1234 5678 <TBW>		G	E	F	I	L	P	Example only This document <TBW>

G = General, E = Engineering, F = Financial, I = Insurance, L = Legal, P = Portal access

9 Logistic arrangements

9.1 Language

The audit documents, such as the *audit plan* and *audit report* will be written in English. The working language used during the audit process (including e-mails) is Dutch and/or English.

9.2 Wra portal

For information exchange a secure (Microsoft SharePoint) Wra portal is used, hosted by X. The information on this portal is only available to a limited set of users. A dedicated group <group name> is defined for the *auditee* to access and provide all relevant information. Only auditee's representatives as indicated in section 8 will be included in the before mentioned group.

Any information on the portal related to this audit, as well as any previous audits of the auditee, can only be accessed by the *auditee* and the *audit team*.

The URL to the Wra portal is <https://.>

9.3 Other

During the *audit* the *auditee* shall provide

- Wifi access to internet;
- a facility to print and copy (parts of) documents.

10 Audit findings

10.1 Findings format

The following table describes the format and entries used for the audit findings.

Table 8 Findings format

Audit finding ID:	Identification of the audit finding, as WRA-AF-<entity abbreviation>-nnn/<E/F/I/G>
Expertise:	Engineering / Financial / Insurance / General
Auditor(s):	Names of auditor(s) involved, see section 4
Expert(s):	Names of expert(s) involved, see section 4
Auditee(s):	Names of person(s) on who's information the finding is based
Function/site/activity:	Indication of the context of the finding, e.g. function of person interviewed, location visited, relevant process
Audit date:	Date or period during which the finding was made
Audit Topic:	Identification / title of the audit topic
Audit Reference:	Identification of the audit reference (to which the auditee should comply). In case suitable audit reference documents are not available, descriptions are used as audit references. These are quoted.
Audit Finding:	Definition of the audit finding (facts)
Unresolved issues:	Details about disagreements between auditor and auditee
Remarks:	Background information related to the audit topic and/or finding
Type:	One of the following: • Conformity. Positive finding; • Non-conformity. Negative finding, should be corrected in following audit; • Critical non-conformity. Negative finding, could be a reason to refuse a licence. Could also be caused by multiple non-conformities (e.g. in different expertises); • TBD. Insufficient information available, should be covered in following audit.

Audit finding numbers <nnn> are a continuation from the previous audit, the count of which starts with 001 with the first finding of the initial audit.

10.2 Findings summary

A summary of the audit findings is shown below. Findings are listed in the same order as the topics in the DRD [RD-03]. Details for each finding are provided in the following sections.

Table 9 Findings summary

Audit finding ID	Topic	Type
WRA-AF-<entity abbreviation>-<number>/<E/F/I/G>	...	...

For the audit topics with type TBD, insufficient information was available to determine whether the topic was conform or not. These topics should be covered in a following audit. If feasible, positive or negative statements on parts of the topic are included. In case any missing information was not available in time, these topics should be covered in a following audit.

10.3 Engineering

Audit finding 1 <Conformity or Non-conformity> in <audit topic>

Audit finding ID:	WRA-AF-<entity abbreviation>-<number>/E
Expertise:	Engineering
Auditor(s):	<name>
Expert(s):	<name>
Auditee(s):	<name>
Function/site/activity:	<TBW>
Audit date:	<date>
Audit Topic:	<TBW>
Audit Reference:	Document from AD list [AD-<TBW>] or quote "<TBW>".
Audit Finding:	<TBW>
Unresolved issues:	<TBW> (Optional) If auditee and auditor do not come to an agreement. Note that both the stand point of the auditee and the auditor needs to be detailed in 'Remarks' below.
Remarks:	<TBW> quote from audit reference or applicable document. Description of the finding
Type:	< Non-conformity, Conformity or Critical non-conformity>

10.4 Insurance

Audit finding 2 <Conformity or Non-conformity> in <audit topic>

Audit finding ID:	WRA-AF-<entity abbreviation>-<number>/E
Expertise:	Insurance
Auditor(s):	<name>
Expert(s):	<name>
Auditee(s):	<name>
Function/site/activity:	<TBW>
Audit date:	<date>
Audit Topic:	<TBW>
Audit Reference:	Document from AD list [AD-<TBW>] or quote "<TBW>".
Audit Finding:	<TBW>
Unresolved issues:	<TBW> (Optional) If auditee and auditor do not come to an agreement. Note that both the stand point of the auditee and the auditor needs to be detailed in 'Remarks' below.
Remarks:	<TBW> quote from audit reference or applicable document. Description of the finding
Type:	< Non-conformity, Conformity or Critical non-conformity>

10.5 Financial

Audit finding 3 <Conformity or Non-conformity> in <audit topic>

Audit finding ID:	WRA-AF-<entity abbreviation>-<number>/E
Expertise:	Financial
Auditor(s):	<name>
Expert(s):	<name>
Auditee(s):	<name>
Function/site/activity:	<TBW>
Audit date:	<date>
Audit Topic:	<TBW>
Audit Reference:	Document from AD list [AD-<TBW>] or quote "<TBW>".
Audit Finding:	<TBW>
Unresolved issues:	<TBW> (Optional) If auditee and auditor do not come to an agreement. Note that both the stand point of the auditee and the auditor needs to be detailed in 'Remarks' below.
Remarks:	<TBW> quote from audit reference or applicable document. Description of the finding
Type:	< Non-conformity, Conformity or Critical non-conformity>

10.6 General

In this section, the relations between the non-conformities within or across the different expertises have to be reported.

In case several non-conformities that affect each other are detected, a certain amplification of the impact of these non-conformities can occur. This might lead to critical non-conformities.

11 **Audit topics not covered**

This chapter identifies the subjects that were part of the original audit scope (see section 5) but have not been covered or discussed in substance as part of the audit.

11.1 **Engineering**

Technical subjects not covered include:

- <TBW>

11.2 **Insurance**

Insurance subjects not covered include:

- <TBW>

11.3 **Financial**

Financial subjects not covered include:

- <TBW>

12 Issues encountered

This chapter has the purpose to discuss issues noticed and/or affecting the audit. A prioritization of these issues is defined by the order of the subsections (highest priority in first section).

13 Conclusions and recommendations

13.1 Conclusions

This section starts with the impression the entity made on the audit team. General terms are used.

<General impression>.

This is followed by details on findings and the audit conclusions and recommendations.

The *audit* in the fields of expertise (engineering, financial and insurance) has resulted in a number of *audit findings*. A number of addressed *audit topics* are still open due to <TBC>. This is summarised in the table below.

Table 10 Summary of findings and open audit topics

Expertise	Conformity finding	Non-conformity finding	Critical non-conformity finding	Open audit topic	Total
Engineering	<TBW>	<TBW>	<TBW>	<TBW>	<TBW>
Insurance	<TBW>	<TBW>	<TBW>	<TBW>	<TBW>
Financial	<TBW>	<TBW>	<TBW>	<TBW>	<TBW>
General	-	<TBW>	<TBW>	-	<TBW>
Total	<TBW>	<TBW>	<TBW>	<TBW>	<TBW>

See section 10.1/ Table 8 for definitions of conformity, non-conformity and critical non-conformity findings

<The audit conclusions>

Depending on the depth of the audit, the assurance given to the *audit client* will vary.

In case of limited assurance, the following statement can be issued:

In conclusion for the engineering review, the *audit evidence* does not give rise to state that facts or circumstances show that the *auditee* is <activity> or will <activity> in such a way that the safety of persons and goods, environmental protection in outer space, the maintenance of public order or national security might be jeopardised.

Furthermore the *audit evidence* does also not give rise to state that the *auditee* is handling in breach of the Wra.

The financial review did not reveal any specific material findings or reasons to assume that in the current situation or in the near future, *auditee* will financially underperform, will have high risk exposure or will not be in control, to the extent that *auditee* potentially will not be able to meet the requirements as stated in the Wra.

The insurance review does not give reason to believe that the *auditee* is not sufficiently protected in case of liability for its space activities, specifically its guidance activities, or that it does not have adequate insurance protection in place.

13.2 Recommendations

In this section the following subjects are to be covered:

- Positive or negative advice on licence request.
- Restrictions for licence (limits of activities in broader sense).
- Recommendations w.r.t. other audits including time frame and audit topics.
- ITAR related recommendations.

Based on the information provided in this *audit report*, the *audit team* provides a <positive or negative> advice to the *audit client* on the licence <request/continuation> of the *auditee*.

In addition, no other reasons as enumerated in the Wra have been found to refuse the licence <TBC>.

The licence shall be restricted to <TBD>

A following audit is recommended within <TBD period>, focusing at least on the open <engineering / financial / insurance> topics, and <TBD>. The findings with non-conformities shall be assessed by the audit client. This could lead to agreements with the auditee to resolve certain non-conformities in a specific time-frame. The agreed measures should be verified during following audits.

The schedule for the follow-up audit should be agreed with the auditee.

If addressing open (or new) audit topics should be hampered by ITAR, the possibility of adding parties to Technical Assistance Agreements (TAA's) should be discussed between parties.

14 Relevant documents and information

The following subsections provide an overview of the relevant information and documents for this audit:

- Applicable Documents for this *audit report*
- Reference Documents for this *audit report*
- *Audit References* for the pertinent *audit*
- *Audit Evidence* for the pertinent *audit*

14.1 Applicable Documents

The following documents are considered applicable for this audit report:

- [AD-01] Format audit plan/report for audits concerning the Space Activities Act, issue 3.0, January 2019

14.2 Reference Documents

The following documents contain references and background information for this audit report:

- [RD-01] Ruimtevaart | RDI website,
<http://www.rdi.nl/onderwerpen/ruimtevaart>
- [RD-02] Aanvraag Vergunning Ruimtevaartactiviteiten <entity>, <ref>, <date>. [Reg.nr RDI: <TBD>]
- [RD-03] Document Requirements Description for Wra licence request and audit information, WRA-DRD, issue 1.3, January 2019
- [RD-04] Audit announcement letter <details TBW>
- [RD-05] <references to previous audit plans/reports>
- [RD-06] Format audit plan/report for audits concerning the Space Activities Act, issue 3.0, January 2019

14.3 Audit References

The following sections specify the documents that are identified as *audit references* and contain *audit criteria* for this audit.

14.3.1 Legal documents

- [AR-01] Wet ruimtevaartactiviteiten
<http://wetten.overheid.nl/BWBR0021418>
- [AR-02] Besluit register ruimtevoorwerpen,
<http://wetten.overheid.nl/BWBR0022944>
- [AR-03] Regeling aanvraag vergunning ruimtevaartactiviteiten en registratie,
<http://wetten.overheid.nl/BWBR0023494>

- [AR-04] Besluit ongeleide satellieten
<http://wetten.overheid.nl/BWBR0036190>
- [AR-05] Memorie van Toelichting (Explanatory Note to the Wra),
<https://zoek.officielebekendmakingen.nl/kst-30609-3.html>
- [AR-06] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies 18 UST 2410 (1967) (Outer Space Treaty); Convention on International Liability for Damage Caused by Space Objects 672 UN Treaty Ser 119 (1968) 24 UST 2389 (1972) (Liability Convention), Convention on Registration of Objects Launched into Outer Space 28 UST 695 (1975) (Registration Agreement). The texts of all treaties are available at
<http://www.unoosa.org/oosa/en/SpaceLaw/treaties.html>
- [AR-07] ITU Radio Regulations <http://www.itu.int/pub/R-REG-RR>,
- [AR-08] ITU-R Recommendations <http://www.itu.int/pub/R-REC>
- [AR-09] Burgerlijk Wetboek Boek 2 Titel 9 – De jaarrekening en het jaarverslag
(Part 9 of Book 2 of the Netherlands Civil Code Dutch accounting law)
<http://wetten.overheid.nl/BWBR0003045/Boek2/Titel9>
- [AR-10] Space Debris Mitigation Guidelines, IADC-02-01, Revision 1, September 2007
<http://www.iadc-online.org>

14.3.2 Norms and standards

The following norms and standards contain requirements, which can be used as audit criteria. Specific standards will be referenced, if needed.

- [AR-11] International Organization for Standardization (ISO),
<http://www.iso.org>,
including the 49.140 Space systems and operations standards and
ISO 24113 on Space debris mitigation requirements
- [AR-12] European Cooperation for Space Standardization (ECSS),
<http://www.ecss.nl>
- [AR-13] Richtlijnen voor de Jaarverslaggeving, <http://www.rjnet.nl/Publicaties/Richtlijnen>
- [AR-14] International Financial Reporting Standards,
<http://www.ifrs.org>

14.4 Audit Evidence

The following documents are identified as *audit evidence* for this audit:

- [AE-01] Aanvraag Vergunning Ruimtevaartactiviteiten <entity name>, <place>, <date>. [Reg.nr RDI: <TBD>].
- [AE-02] <entity> Space Activities Information Document for Wet ruimtevaartactiviteiten licence,
<date> <document based on DRD>
- [AE-03] More TBW

Optional part below:

The following reference documents are relevant for the audit, but have not been used since they have been received after the end of the field work date <date>:

- [AE-04] <TBW>