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# DOCUMENT

## IOD CubeSat Deliverable Items List

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# APPROVAL

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# CHANGE LOG

Reason for change	Issue	Revision	Date

# CHANGE RECORD

Issue 1	Revision 2		
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## **1 INTRODUCTION**

This applicable document to the related Statement of Work defines all of the required items to be delivered by the Contractor to the Agency during the execution of the CubeSat Technology Pre-development project.

Deliverable items include:

- Documentation
- Satellite Design Data
- Satellite hardware/software
- AIV data and Operational data after launch of the CubeSat

## 2 DOCUMENTATION

The required documents to be delivered for each of the programme milestones and their status are given in Table 2-1 below.

Document Name	Preliminary Design Review	Critical Design Review	Flight Acceptance Review	Post-Flight Review
Mission Requirements Document (MRD)	Issue	Control	Control	
Mission Analysis Report (MAR)	Issue	Maint.	Maint.	
System Requirements Document (SRD)	Issue	Control	Control	
System Design Report (SDR)	Issue	Control	Control	
Environmental Design Specification	Issue	Control	Control	
Space Debris Mitigation Document	Issue	Maint.	Maint.	
Space-to-ground Interface Control Document (SGICD)	Issue	Control	Control	
Declared Lists for Parts, Materials and Processes (DLs)	Issue	Control	Control	
Satellite Mechanical Analysis Report	Issue	Maint.	Maint.	
Satellite Thermal Analysis Report	Issue	Maint.	Maint.	
Satellite AOCS Analysis Report	Issue	Maint.	Maint.	
COTS User Manuals	Issue	Maint.	Maint.	
System Development Plan (SDP)	Issue	Maint.	Maint.	
Payload-Platform Interface Control Document (ICD)	Issue	Control	Control	
Product Assurance Plan (PAP)	Issue	Maint.	Maint.	
Engineering Model Test Procedures		Issue (before tests)		
Engineering Model Test Reports		Issue		
Satellite AIV Plan		Issue	Maint.	
System Verification Control Matrix (VCM)		Issue	Maint.	
Non-Compliance Reports (NCRs)		Issue (as needed)	Issue (as needed)	
Request For Waivers (RFWs)		Issue (as needed)	Issue (as needed)	
Safety Data Package		Issue	Maint.	
Satellite Integration Logbook			Issue	
Satellite Proto-Flight Model Test Procedures			Issue (before test)	
Satellite Proto-Flight Model Test Reports			Issue	
Ground Segment Acceptance Test Procedure			Issue	
Ground Segment Acceptance Test Report			Issue	
System End-to-End Test Procedure			Issue	
System End-to-End Test Report			Issue	
Mission Operations Plan			Issue	
Mission Operations Status Reports				Issue
Post-flight Analysis Report				Issue

Table 2-1: Document Requirements List (Maint. = maintenance; Control = configuration controlled)



### **3 SATELLITE DESIGN DATA**

The following satellite design data models shall be delivered by the Contractor:

- **3D Computer Aided Design (CAD) model of the satellite configuration**
- **Finite Element Model (FEM) of the satellite structural design**
- **Thermal Mathematical Model (TMM) of the satellite thermal design**



## **4 SATELLITE HARDWARE/SOFTWARE**

The following hardware shall be delivered by the Contractor:

- Engineering Models (EMs) of the newly developed platform and payload items (electrically representative of flight configuration)
- Satellite ProtoFlight Model (PFM) for launch
- Mechanical and electrical Ground Support Equipment associated with the EMs and PFM manufactured/procured under the contract
- Mission Control Centre equipment procured under the contract
- Satellite flight spare items procured under the contract

The following software shall be delivered by the Contractor:

- On-board flight software installed on the PFM
- Mission control software developed/procured under the contract



## **5 OPERATIONAL DATA**

The following operational data shall be delivered by the Contractor:

### *Phase C/D*

- Satellite database generated during system-level verification activities

### *Phase E/F (LEOP and nominal mission operations)*

- Satellite database: containing all uplinked telecommands and downlinked telemetry from launcher separation until post-mission disposal
- Payload database: containing all downlinked data from each of the payloads post-processed into a computer-readable format