

SATELLITE PROCUREMENT CONTRACT: CHECKLIST

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A checklist of points to include in a typical satellite procurement or construction contract.

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The legal, regulatory and contractual aspects for the satellite sector are specialised, although general principles of commercial and competition law apply to satellite procurement and launch contracts. Insurance is an important issue and this must be reflected in any commercial contracts.

SATELLITE PROCUREMENT CONTRACTS

Satellite procurement contracts resemble construction contracts more generally, such as for aircraft, and are usually made between a prospective satellite system operator, as purchaser, and a manufacturer, as supplier, for space segment and related Earth facilities. They can be “turn-key” or, where the purchaser is experienced, bespoke. There is a reasonable number of manufacturers with the technical capability to deliver non-military satellites and increasingly more entering the market as manufacturers of small satellites (smallsats).

Given the degree of risk associated with the manufacture and launching of satellites it is not uncommon for procurement to be subject to lengthy tendering procedures.

If you are also negotiating a satellite launch contract, it is essential that the two contracts are consistent with regard to delivery schedules, risk and insurance, warranties and indemnities. For a checklist on the points to include in a launch contract, see [Checklist, Satellite launch contract](#).

A typical satellite procurement contract would include the following clauses (in addition to the usual standard boiler-plate clauses).

Scope of work

Work to be carried out, with detailed technical matters referred to in a technical schedule (often in response to any tender requirements).

Delivery schedule

This is a matter of importance to the purchaser given the strictness of timings for compliance with International Telecommunication Union (ITU) Radio Regulations in relation to spectrum filings, bringing into use dates for spectrum assignments, the satellite launch schedule and also commercial plans and customer requirements. This is equally important to the manufacturer given that delays are not uncommon.

Particular provisions and milestones during the construction phase

Progress reports assure the purchaser that the manufacturer is performing and also providing an opportunity to make modifications where necessary. See [Changes and modification to satellite during construction](#).

RESOURCE INFORMATION

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RESOURCE TYPE

Checklists

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JURISDICTION

International

Inspection and acceptance

This is crucial because, once launched into space, corrections to satellites are normally only possible to the extent that they can be performed through terrestrial control of the satellite. This may change to some extent with the advent of in-orbit servicing missions. For the manufacturer, these inspection procedures will also be relevant to the payment of milestones, and acceptance is one of the most critical payment milestones. Acceptance can occur before a satellite is shipped for launch, at the launch site or as may otherwise be agreed between the parties, and is generally referred to as "Final Acceptance".

Correction of defects or anomalies

This clause will cover defects in the manufacture of the satellite or its components that are to be corrected by the manufacturer at its expense, but it can also trigger modifications for various reasons. If the modification is as a result of a defect or is otherwise necessary because of some act or omission by the manufacturer, then it would be carried out at the manufacturer's expense. If requested by the purchaser, then it would be part of *Changes and modification to satellite during construction* and at the purchaser's expense.

Passing of risk and title

The purchaser needs to be confident that it receives good title to the satellite and will require a warranty to this effect. The time at which risk passes to the purchaser is usually the subject of detailed negotiations with the manufacturer, which can occur on launch or on shipment to the launch site, or whenever else the parties may agree. The time when risk passes will have a bearing on the insurance that the purchaser will obtain as part of its overall commercial arrangements.

Prices and payments

These are detailed provisions and can be instalments during manufacture against agreed "milestones": a lump sum on acceptance or a combination of instalments during manufacture and "incentive payments" during the life of the satellite. Incentive payments are attractive to purchasers as they defer payments, but they can increase the satellite cost as the manufacturer also has to bear the risk of satellite performance over its projected lifetime, which may diminish through no fault of the manufacturer. Additionally, the agreed price should detail whether costs, such as for transportation of the satellite to the launch site or for storage and related insurance, are included or are additional.

In-orbit testing

The manufacturer will have to undertake with the purchaser various tests to determine whether the satellite is performing according to the satellite specifications. Depending on the results of these tests, various consequences follow: in the event that the satellite conforms, appropriate payments will be made; if it does not, then reviews will be undertaken to determine the reasons why the satellite is non-conforming and whether it is a total, constructive total or partial loss. Depending on the outcome, various financial consequences follow (see *Remedies*) including insurance payments where applicable.

Insurance

Various risks will be covered by insurance in the event of total loss, constructive total loss or partial loss. Therefore, in commercial negotiations the parties will determine the circumstances where payments would be made through insurance or through refund by the contractor (depending on the cause of, and therefore the liability for, any loss). In addition, the manufacturer would normally insure the satellite before title vested in the purchaser.

Force majeure and excusable delays

Force majeure terms are fairly standard but governmental action can be important, especially in a volatile political world where highly advanced technology is being used for outwardly peaceful purposes, but can have other uses. Excusable delays are a subject for commercial negotiation and relate to which party bears the risk.

Patent and data rights

These are fairly standard, with a purchaser wishing to use all relevant data and documentation supplied to operate the satellite. The manufacturer will want confidentiality and non-disclosure and may also need to assign licences. There are normally provisions with regard to infringement of intellectual property rights by either party and also provisions relating to joint or purchaser-led intellectual property rights in any improvements.

Export licences and authorisations

Given the sensitive and dual-use nature of satellite technology, certain governmental export licences, particularly those of the United States, may be necessary, and they are usually the responsibility of the manufacturer. Similarly, the manufacturer is generally responsible for obtaining and maintaining all regulatory and other governmental authorisations as may be necessary for it to fulfil its obligations under the contract.

Warranties

In addition to title, other fairly standard warranties are needed, including warranties that the satellite and related equipment are free from defects and conform to the relevant specifications, and that the manufacturer will perform its duties with care and skill. The purchaser will also have obligations to provide information, which it will warrant is correct.

Liabilities and indemnities

These are governed by national law and therefore a party would not be able to exclude liability for death or personal injury arising out of negligence. However, risk to personnel is relevant, especially at the launch site, and so it is usual for parties to have waivers and indemnities.

Key personnel and logistical support

Some of the manufacturer's personnel will be key to the procurement and would be identified as "key" with provision for agreed changes to such personnel. Support for the purchaser will also be important, especially if it is its first satellite. In addition, the manufacturer will need to provide facilities during inspection and may also need to obtain any necessary visas for the purchaser's staff.

Changes and modification to satellite during construction

Given the nature of satellite construction and technical developments over the long lead times during manufacture, it is important to be able to modify the contract through a reasonably flexible procedure.

Assignment

These tend to be standard although both parties may want to control to whom a contract may be assigned. This clause may be important to allow the raising of financing, whereby the rights of either party may be assigned to a financial institution.

Remedies

Remedies for breach depend on the nature of the breach. In most cases the purchaser will want a satellite delivered, and therefore the parties may rely on liquidated damages for breach. However, termination for breach may be appropriate where the breach is one not capable of monetary compensation. This may arise, for example, if delivery is likely to be so delayed that the purchaser may not be able to launch the satellite in a feasible commercial timeframe with a satellite launch contractor, or may be out of time to maintain its ITU filing for the relevant orbital position and/or frequency co-ordination. The purchaser will also need remedies in cases where the manufacturer suffers a partial loss (as defined in the contract) or is unable to correct deficiencies or defects in the satellite. The manufacturer's remedies are normally limited to failure by the purchaser to meet its payment obligations.

Termination

These will be subject to detailed negotiation and normally would be automatic in the event of insolvency or of fundamental breaches by either party. There may also be termination for convenience by the purchaser with associated payments to the manufacturer. The manufacturer may also wish to have the right to take over the contract in the event of termination.

Options

In some cases a purchaser may also negotiate options for one or more additional satellites, in which case the relevant terms would be part of the contract, including price for exercising the option.

Arbitration

Given the nature of satellite construction, parties need to have fast-track resolution of disputes procedures and also effective arbitration with access to experts to help resolve disputes.

Governing law

Sometimes this will be one of the parties' jurisdictions, or a neutral one.

SATELLITE LAUNCH CONTRACTS

If you are also negotiating a satellite launch contract, it is essential that the two contracts are consistent with regard to delivery schedules, risk and insurance, and warranties and indemnities. For a checklist on the points to include in a launch agreement, see [Checklist, Satellite launch contract](#).