

Model Repair Access Clause

A drafting model for award terms that keep a crew able to fix what
it depends on

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What this is

A model clause for any award that puts people in a sealed habitat they cannot leave quickly: a lunar surface site, a cislunar station, a long-duration transit vehicle. It is drafted from the argument in One-Way Architecture (DOI 10.5281/zenodo.23786221), which found that the rights a crew would need mostly already exist in federal procurement law, and that the missing piece is **delivery**: the clause has to order the data, not assume the rights attach.

It is a drafting model, not legal advice, and not a representation of any agency's position. Counsel must adapt it to the award instrument, the appropriations, and the applicable supplement.

Why a clause and not a right

A crew member inside a habitat has no route to invoke a rights clause. The clause binds the contractor and the agency, not the person at the panel. Occupational safety law reaches the worksite but provides no private right and no damages. Export control restricts what can be handed over. The practical consequence is that repair access is either **priced into the award at the front end** or it does not exist.

A company that knows at proposal time that the government will require maintenance data, spares data, and interface documentation can price the requirement into its bid. A company that discovers it after delivery has been treated unfairly, and a buyer who behaves that way should expect fewer bidders.

The clause

REPAIR ACCESS AND SUSTAINMENT DATA (MODEL)

(a) Purpose. This clause ensures that personnel at the worksite can maintain and repair systems on which their safety depends, without dependence on contractor authorization, contractor presence, or a contract modification, for the duration of the operational period.

(b) Definitions. Worksite means any habitat, vehicle, or facility under this award where crew are present and from which emergency return is measured in days or longer. Maintenance data means technical data, manuals, procedures, diagnostics, fault codes, and configuration information necessary for inspection, servicing, repair, overhaul, or testing. Interface documentation means the mechanical, electrical, fluid, data, and software interface specifications necessary to remove, replace, or integrate a component. Spares data means part numbers, specifications, approved alternates, and lead times for items identified as maintenance-significant.

(c) Delivery of maintenance data. The Contractor shall deliver maintenance data for all maintenance-significant systems. The Government shall have unlimited rights in data that constitute manuals or instructional material for installation, operation, or routine maintenance and repair, as provided in FAR 52.227-14. Where the Contractor asserts limited rights in any portion, the notice required by Alternate II of that clause shall identify emergency repair and overhaul as a permitted disclosure, consistent with FAR 27.404-2(c)(1)(iv). Delivery is a contract deliverable, not a condition precedent to a later request.

(d) Interface documentation to a standard. Interface documentation shall be delivered to a published, citable standard, and shall be sufficient for a competent technician who did not build the system to remove and replace the component without contractor assistance.

(e) Spares and lead times. The Contractor shall deliver a spares catalog identifying maintenance-significant items, their specifications, approved alternates, and lead times, and shall maintain or make available a procurement path for those items that does not require a contract modification.

(f) Crew-initiated maintenance request. The Contractor shall establish and staff a channel by which a designated crew member may request technical assistance, obtain a procedure, or report a fault, with a stated response time. The channel shall function without a contract modification and

without prior approval from the Contracting Officer for requests within the pre-priced scope.

(g) Access and permission. For the systems and tasks listed in the Sustainment Access Schedule attached to this award, the Contractor shall not require its prior authorization for the crew to open, inspect, remove, or replace a component, provided the crew follows the delivered procedure and applicable safety direction.

(h) Training and qualification. The Contractor shall deliver training sufficient to qualify designated crew to perform the tasks in the Sustainment Access Schedule, and shall identify the criteria by which a crew member is considered qualified.

(i) Separately priced. The requirements of this clause shall be identified as a separately priced contract line item, so that the cost is visible at evaluation and can be competed.

(j) Flow-down. The Contractor shall include the substance of this clause in subcontracts for maintenance-significant systems, and shall identify in its proposal which subcontractors hold data or interfaces necessary for repair.

(k) Relationship to safety authority. Nothing in this clause limits the Contracting Officer's authority to direct safety measures, inspect the worksite, or stop work under the applicable safety and health clause. This clause supplies the technical means by which a directed safety measure can be carried out at the worksite.

(l) Export control. Nothing in this clause requires the delivery or disclosure of data in violation of applicable export control law. The Contractor shall identify any item subject to control and propose an alternative means of achieving the purpose in paragraph (a), including a qualified-servicer arrangement under paragraph (m).

(m) Qualified servicer alternative. Where delivery of data is not permitted, the Contractor shall propose a qualified-servicer arrangement that provides the crew with a documented route to repair, including response commitments and any on-site presence obligation.

(n) Conflict. In the event of conflict between this clause and any other term of the award concerning the crew's ability to maintain a system on which safety depends, this clause governs to the extent of the conflict.

How a contracting officer would use it

1. **At requirements definition.** Attach a Sustainment Access Schedule listing the systems and tasks that must be repairable at the worksite, and mark it as a evaluated requirement rather than an aspiration.
2. **At evaluation.** Score the offeror's proposed maintenance data, interface standard, spares path, response time, and price for the separately identified line item. An offeror that has not priced the requirement has not answered it.
3. **At award.** Execute paragraphs (c) through (f) as deliverables with dates, not as intentions.
4. **At modification.** Use the clause to avoid the modification. The point of the pre-priced line item is that a repair request is not a new requirement.
5. **At closeout.** Confirm the as-built configuration data and the spares catalog have been delivered, and that the qualified-servicer arrangement, if used, survives the end of the contract.

What this clause does not do

It does not create a private right of action for a crew member. It does not override export control. It does not convert a services contract into a data-rights contract. It does not guarantee a repair is possible; it guarantees that the means to attempt one are present at the worksite.

Model clause, version 1.0. Derived from the working paper One-Way Architecture: The Right to Repair as a Life-Safety Requirement for Permanent Cislunar Settlement (Williams and Zee, 2026), DOI 10.5281/zenodo.23786221. Comments and proposed redlines to official@milkywayeconomy.com.