Contracting for New Equipment
or
The Philosophy of Acquisition

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Genesis of This Talk

Expert: n., Someone that has made all possible mistakes within a narrowly defined field of interest.

This talk is derived from the following:

- discussions with Paul Brand, NCNR
- discussions with Tamara Grinspon, NIST Acquisition Assistance Division (Procurement)
- Contracting Officer Technical Representative training course
- going through the ratification process
The Way Equipment Contracts Have Often Been Done

Premise: The Procurement division is an obstacle.
- they slow things down
- you are forced to go with the lowest bidder
- we know who we want to buy from

Strategy: Get around their rules.
- write a sole source justification because that will be quicker
- write specifications so that it is essentially a sole source procurement
The Way Equipment Contracts Have Often Been Done

Execution: Push the award through.

Scanty Statement of Work submitted.

Convince the contracting officer everything is straightforward, maybe even urgent.

Technical evaluation is hastily written.

Result: Acquisition complete.

Whatever is delivered will be accepted.

Shortcomings are swallowed as the cost of doing business.
The Way Equipment Contracts Have Often Been Done

Problems with this approach

Premise: Procurement is there for guidance, structure, and your protection.

Strategy: Sole source takes as long to process as any other approach, is hard to justify, and is open to protest.

Execution:

World is notified of intent to sole-source.

Statement of work defines the contracting relationship, for better or worse.

Results:

Cost is likely higher.

Controls not present in contract.

Contracting officer cannot be an ally.
Advised Approach

- Work from a performance standpoint to derive specifications.
- Do thorough market research to promote competition.
- Readjust specifications if necessary based on market research and requirements.
- Contact Procurement department/division early, before submission of any paperwork.
- Be honest, brutally honest, with Procurement.
- Prepare a complete Statement of Work.
- Provide incentives to the vendor in the contract.
- Buy a complete system if possible to make the vendor a full partner.
- Always go for best value, not lowest price.
Advised Approach

Disadvantages

- more paperwork, more work up front
- procurement will take longer
- less standardization?

Advantages

- lower price
- different, maybe better, solutions
- greater involvement with vendors & Procurement
- contract protection
- contracts can provide for future needs without extra work
Case Studies

Top-loading 3He cryostat
- Needed reliable, low maintenance low temperature capability
- Followed rules outlined including market research
- Surprised during solicitation phase by completely different approach
- Award went to best technical approach

Superconducting magnet delivery
- Initially delayed years due to world-wide magnet wire shortage
- Underwent major re-design without notification to contracting officer
- Requested delivery before system met all performance specifications
- Signed off for payment before noticing problems
- Contracting officer negotiated free repair, spare sample stick, and mended relationship with vendor
Our Present Needs/Desires

- Partner with other institutions for achieving similar goals
- done properly, vendors should benefit as well
- Pursue research projects through contracting
- must have Procurement on board for this
- Examples of current projects
  - User-friendly radiation shield mounting scheme for 10–800 K
  - Adiabatic demagnetization refrigerator, cryogen free
  - Fast exchange sample changer (like FERNS, but different)
  - Sample exchanger for many samples (ESRF robot picker)
  - Neutron friendly mirror furnace