ESMD Organization
Constellation Systems

Exploration Systems Mission Directorate Management (HQ)

Constellation Systems Division
- Crew Exploration Vehicle
- Crew Launch Vehicle/Heavy Lift Launch Vehicle
- Launch & Mission Systems
- Expl Comm & Nav Systems
- EVA
- Future Systems
- Commercial Crew/Cargo

Program Management (Centers)

Constellation Systems Program Office (JSC)

Associate Administrator (AA) For Exploration Systems
- Deputy AA

Project Management (Centers)

- CEV Project Office (JSC)
- CLV/HLLV Project Office (MSFC)
- Launch Systems Project Office (KSC)
- Mission Systems Project Office (JSC)
- EVA Project Office (JSC)
- Comm and Nav Project Office (GSFC)
- Commercial Crew/Cargo Project Office (JSC)

Future Systems
Commercial Crew/Cargo
Project Strategy

• Phase 1 – Commercial Orbital Transportation Systems (COTS) Demos
  – Solicit proposals from industry for Earth-to-orbit space flight demonstrations of any combination of the following capabilities:
    A) External Cargo Delivery and Disposal
    B) Internal Cargo Delivery and Disposal
    C) Internal Cargo Delivery and Return
    D) Crew Transport (Option to Capability C)
  – Capability A, B, and C demonstrations will culminate with a rendezvous and docking or berthing with the ISS or other suitable orbital test bed and either disposal or reentry and recovery, depending on the selected mission
  – Capability D (Crew Transport) demonstrations will consist of one or more crewed missions to the ISS and will be considered for execution only after the successful completion of Capability C
  – Use NASA Space Act authority to enter into funded agreements
  – One or more initial agreements are anticipated

• Phase 2 – Commercial Orbital Transportation Systems (COTS) Services
  – Competitively procure orbital transportation services under FAR Part 12 (commercial services contracts) upon successful demonstration of any one mission capability
## Commercial Crew/Cargo

### Project Roadmap

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Orbital Transportation Systems Demo (SAA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A) External Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B) Internal Delivery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C) Internal Return</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D) Crew Transport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Phase 2

<table>
<thead>
<tr>
<th>Commercial Orbital Transportation Services (RFP/FAR Pt12)</th>
<th>Services Contract(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>Fixed-Price, Pay-On-Demonstration Milestones</td>
</tr>
</tbody>
</table>

- A) External Delivery
- B) Internal Delivery
- C) Internal Return
- D) Crew Transport

Option on C

- Fixed-Price, Pay-On-Demonstration Milestones
- Delivery Orders

Orbital Demos

Select Best Value Portfolio

Constellation Systems
Commercial Crew/Cargo
Project Schedule and FAQs

• Near-Term Schedule
  – Synopsis Released – October 28
  – Draft SAA Release – December 5
  – Industry Day – December 8
  – Comments Due on Draft SAA – December 16
  – Final SAA Release – January 18
  – Proposals Due – See Final Release
  – Awards – See Final Release

• Frequently Asked Questions
  – Can emergent or established companies propose? Existing or new designs and hardware?
    • Yes, both emergent and established companies can propose. Proposals can include any mix of existing or new designs and hardware.
  – Is foreign content allowed?
    • Yes, consistent with U.S. law and policy.
  – Is cost-sharing allowed?
    • Yes, proposals can include private investment, but financial risk will be evaluated during the selection process.
  – Does NASA have a preferred “last-mile” solution?
    • No. Proposals can use existing solutions (Soyuz/Progress, ATV, HTV, or Shuttle systems) or propose new solutions, consistent with the interfaces and specifications for ISS operations supporting the final announcement.
  – What are the requirements?
    • See the draft and final announcement. Technical goals are based on objectives, not process. Cargo requirements will seek to fill the gap between Space Station needs and International Partner contributions consistent with the Space Station traffic model.
  – Do proposals have to meet all Space Station needs?
    • No. Companies can propose demos against one, some, or all cargo requirements sets (external cargo delivery and disposal, internal cargo delivery and disposal, and internal cargo delivery and return). Crew transport can be proposed as an option to internal cargo delivery and return.