A Commercial Habitation Module: Good for NASA, Good for Industry, Good for Everyone

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Commercialization needs 2 things to "takeoff"

1. Cheaper, Safer Access to Space

2. Greater productivity once on orbit

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Crew Time and Productivity

- Spacelab and Mir Examples as a benchmark
- ISS: How can/will it be different?

Applications for the Marketplace

- Shuttle: High efficiency, but short stays
- Mir: Long stays but low efficiency
- ISS: Can we get the best of both worlds?

On-orbit Research….”Turning a Product”

- Shuttle & Mir: Largely Govt. and Academia
- ISS: Can we get Industry R&D (and thus commercialization) more into the picture?

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Crew Office Consensus

TransHab will promote integrated ISS crew operations by providing living and working spaces large enough to bring the whole 6-person crew together.

The increased volume in TransHab will aid in solving the ISS integrated stowage problem. Centralizing some ISS stowage will reduce crew overhead and free time for utilization.

Exercise overhead will be reduced, freeing time for utilization.

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Crew Office Consensus

Meal preparation will be much more efficient than split galley operations in the Common Hab and SM scenario, again freeing time for payloads activities.

Better rest in superior crew quarters for all six crewmembers, located together in TransHab, will provide a more capable and resilient orbit team.

A commercial role in TransHab may enable an early trial of a HEDS technology necessary for human presence beyond low Earth orbit. This plus for NASA may also appeal to a high-tech, forward-looking commercial sponsor.

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TRANSHAB Offers:

3 to 4 times the volume of HAB
Radiation Shelter/Safe Haven
Functionally-base layout (3 levels)
separate rooms for meals, hygiene, exercise, stowage, work
Greater MMOD protection
Applicable for later, beyond earth orbit, missions