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Panel Session IV - Exploration Transportation Systems

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2004 SPACE CONGRESS

Exploration Transportation System

Presented by: Mike Kahn

April 2004

ATK
AERIAL TECHNOLOGICAL

ATK THIOKOL INC.

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Exploration

"The sense of exploration is intimately bound up with human resolve, and for a nation to believe that it is still committed to forward motion is to ensure its continuance."

James A. Michener

ATK ATK THIOKOL INC.

The Spirit of Exploration

Space Initiatives Fuel Technological Advancement

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Achieving Our Exploration Vision

...By Taking Advantage of STS Infrastructure

- People
- Safety
- Facilities
- Cost
- Hardware
- Schedule

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ETS Evolution

Today

Current STS

Tomorrow (2008)

Heavy Lift Carrier: 160 klb Cargo LEO (6.5m x 25m)

Medium Lift Carrier: 35-40 klb Cargo LEO

Future (2011 - 2015)

Growth: 200 klb Cargo LEO (6.5m x 35m)

CEV Launch System

225 klb Cargo LEO (9m x 35m)

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ETS Derived From STS Benefits

<p>Safety</p> <ul style="list-style-type: none"> • Human-rated systems • Maximizes use of demonstrated and mature systems • Maintains focus for STS 	<p>Schedule</p> <ul style="list-style-type: none"> • Existing infrastructure, workforce, and assets enable earlier start with higher confidence • Nearly everything currently in production • Allows demonstration/flight capability with STS
<p>Cost</p> <ul style="list-style-type: none"> • Low ETS added cost with ongoing STS • Leverage SLEP safety investments to ETS application • Mature/well understood infrastructure 	<p>Growth</p> <ul style="list-style-type: none"> • Increased performance through 5th segment, longer ET • Multiple missions/common hardware • Large body of knowledge and experience for future spiral development needs

The first step is...
Our Safe Return to Flight



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