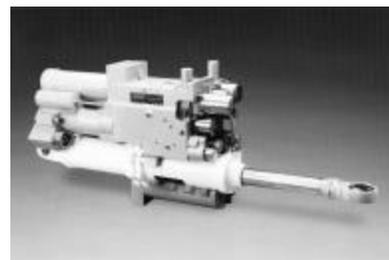


## SUMMARY #2 -- PROGRAM MILESTONES & STATUS

- Program goal is to develop a self-contained EHA- based actuator small enough to enable *Power-by-Wire* flight controls in unmanned aircraft
- Phase I will demonstrate a smart material pump delivering the required power density
- Phase II will integrate new pump into a compact EHA scaled to the X-36 envelope

Task Name / Deliverable	Program Year1				Program Year2				Program Year3			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PHASE I: Brassboard Demos												
Develop smart material pump	[Bar]											
Develop power conditioning		[Bar]										
Demonstrate actuation by pump					[Bar]							
PHASE II: Actuator Demo	<i>Funding of Phase II dependent upon performance in Phase I</i>											
Modify pump/electronics for integration												
Modify EHA configuration for integration												
Integrate pump and actuator												
Compact actuator performance tests												

*smart material pump externally connected to EHA to replace rotary pump*



Integrated smart material powered EHA

Evaluated against X-36 system requirements