

A&AE 451 Aircraft Design
Fall 2000

Design of a Small Remotely-Piloted Variable Stability Aircraft

Project Schedule - Primary Milestones:

Aug. 22, 2000, Tu	First class, Receive Mission Specification.
Sept. 5, Tu	Individual Mission Evaluation report due.
Sept. 7, Th	Individual System Concept(s) due (individual concept sketches and description).
Sept. 12, Tu	Team Design Requirements & Objectives due.
Sept. 14, Th	Candidate team concept/s defined.
Sept. 19, Tu	Begin weekly Preliminary Design Reviews (PDRs). Ground and Flight Control System PDR.
Sept. 21, Th	Team Concept Selection Document due. Vehicle Sizing PDR.
Sept. 26, Tu	Project Plan Review (PPR) (30 minutes, formal presentation).
Sept. 28, Th	Propulsion PDR#1.
Oct. 3, Tu	Aerodynamics PDR#1.
Oct. 5, Th	Individual Trade Study #1 due. Structures & Weights PDR.
Oct. 7-10	OCTOBER BREAK
Oct. 12 Th	Dynamic Modeling PDR for Vehicle and Avionics

Oct. 17, Tu	Propulsion system selection completed. Propulsion PDR#2.
Oct. 19, Th	Aerodynamics PDR#2. Individual Trade Study #2 due.
Oct. 24, Tu	Flight Performance, Stability & Control PDR. Parts Acquisition List due. Parts ordered (4:00 PM).
Oct. 26, Th	DRAFT Thiokol Final Design Report Due. >>> Prototype Fabrication, Economic, & Test Plan PDR. <<<<
Oct. 31, Tu	Critical Design Review (CDR), (formal oral presentation, 60 minutes with question and answer period), no construction prior to this date, 21 days to construct flying prototype.
Nov. 16, Th	Flight Readiness Review (completed aircraft checked for flight safety and flight worthiness, Pilot inspection of aircraft).
Nov. 21, Tu	>>>> In-door flight tests, First official flights <<<<<< Mollenkopf Athletic Center (Open to the public).
Nov. 22-26	>>>> THANKGIVING VACATION <<<<<<
Nov. 28, Tu	Post Flight Briefing (Emphasis on flight data)
Nov. 30, Th	Dynamic Response Review (Time history comparisons)
Dec 4-8	DEAD WEEK
Dec. 5, Tu	Summary Project Presentation, Overview of the system, requirements, concept development, prototype fabrication and a testing. (formal presentation, 60 minutes followed by a question and answer period, public invited).
Dec. 8, Friday	Thiokol Final Design Report due, Peer Evaluation due, Course ends.